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A SCHOOL COUNSELLOR, A BLIND CHILD
AND THE SIGHTED SCHOOL

BY



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A THESIS

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The undersigned certify that they have read, and
recommend to the Faculty of Graduate Studies and Research
for acceptance, a thesis entitled "A School Counsellor, a
Blind Child and the Sighted School" submitted by Charles
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ABSTRACT

A counsellor gives an anecdotal record of the integration of a partially-sighted, legally-blind boy into a large, departmentalized junior high school in the City of Edmonton, Alberta. The thesis demonstrates the ease with which integration of an above-average student is accomplished by careful planning. The first chapter deals with the boy's initial adjustment period, his early acceptance and rapid burgeoning after his release from the confines of the classes for the blind into a regular classroom.

Chapter II describes the boy's acceptance into the physical education and music programs in his own school and his participation in enrichment programs at two other schools. Chapter II also describes his academic achievement and his success as a horseman.

Chapter III outlines plans for music, mobility, university and vocational training.

The latter part of the work deals with general issues encountered by personnel working with the blind. Agencies for the blind and resources available are described. The final section provides a discussion of aids, methods and references suitable for the low-vision child. An attempt is made to share the experience of students, teachers and workers for the blind.

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CHAPTER I

INTRODUCTION

The present thesis is a departure from the approach adopted by the majority of counselling majors in Educational Psychology. The thesis is a counsellor's account of the progress of a partially-sighted, legally blind boy through two years in a large departmentalized junior high school in the city of Edmonton, Alberta.

The subject of the thesis, Randy, is an exceptional person and was chosen because of this exceptionality to be educated in an ordinary sighted school rather than in low-vision classes.

Randy's story may serve as a readable account for future teachers or counsellors of the blind. It serves to bring together some literature on the integration of the blind in the sighted classroom. It serves also as a rather extensive report for Randy, his parents, teachers and administrators. Finally, this account is intended to serve as a reminder of the need of blind people for individualized services so that they can adjust to their handicap and become independent citizens.

"You will have a blind Grade VII boy in your school next year."

In June, 1969, the staff at Stratford Junior High School was informed that an attempt would be made to integrate a blind child into our regular Grade VII classes. The integration of a blind child, who had earlier attended

residential schools for the blind and low-vision classes, had not been tried at this level before in the Edmonton public school system. The director of Special Education hoped that the boy could operate in a regular class with assistance from an itinerant teacher. The novelty of the situation left me with feelings of inadequacy. I listened to the itinerant teacher of the blind as she made promises of assistance with tapes, Braille texts and talking books, but these things had little meaning for me. I simply had no previous experience which would enable me to comprehend the paraphernalia of the blind. Stratford might be the school within the blind boy's legal boundary, but it seemed more sensible to me to have him transferred back to the low-vision classes where more specialized assistance was likely to be available.

Isn't there some other place for him?

Parents from the Alberta Society for the Visually Impaired suggest that this question is usually asked when a blind or partially-sighted person tries to gain admission to a kindergarten, elementary school or other institution. "Is there not some more appropriate school?", they are asked. The implication is that a blind child should be kept permanently in an institution for the blind. One could conjecture that people do not understand blindness. Teaching ordinary children is difficult enough: teaching blind children seems impossible to the uninitiated. I shared

their sense of ineptness, for I was educationally unprepared for the experience that was to follow.

Notice to teachers of Randy

On the first day of school, September 3, 1969, Mrs. North, the itinerant teacher for the blind, brought four tapes of the Story of Canada for Randy to use at home. She also communicated to me much information which I summarized in a memorandum to the involved teachers in our departmentalized junior high school.

September 3, 1969

To: Grade 7F teachers

From: Mr. C. Bailey, Counsellor

Regarding: Randy, Grade 7F

Points: This boy is legally blind. Mrs. North, an itinerant teacher of the blind, is available to help us. Her telephone number is 424-3367. Randy is good at Braille, intelligent, popular and has a brother, B., in Grade 9A, Room 102, who will help. He can type. Randy has a tape recorder at home. There are tapes and large print encyclopedia available from Mrs. N. He must be very close to the board to see it. He enjoys doing Mathematics at the board. He can play the piano. He is an 'audile', that is, if others read the text to him, he can grasp it quickly. He should have one study period per day. He is excused from Physical Education.

The reaction of the teachers

During the first few days of school, the blind boy was given little special attention in class. He maximized the use of his residual vision and his fellow students

readily aided him to circumvent difficulty. When my enquiries brought Randy to the attention of his teachers, some of them reacted with requests for his removal. In fairness, they felt inadequate to the task of teaching him and thought that special class placement was warranted. Some adopted a laissez faire attitude and let the boy adjust to the sighted classroom. There were indeed two instances where teachers did refuse to assume the task of teaching Randy. However, alternate placement was found.

Really . . . It is the easiest handicap

The staff at Stratford found that blindness does not present such an obstacle to teaching as might be initially expected. It could be argued that it presents no stigma. In an interview with the writer, November 3, 1970, Mr. E. Casey, Executive Director of the Western Institute for the Deaf, Vancouver, expressed the belief that:

When compared with deafness, retardation, or some other handicap, the adjustment required for blindness seems more possible. Blind students are generally articulate and can express their feelings. They are able to exchange ideas more swiftly and precisely than the deaf who use cumbersome sign language which precludes communication as universal as that provided by spoken language.

In addition to speech, the blind have Braille writing to use in communication, music and other subjects.

Mathematics in Braille using the Nemeth Code has removed many of the ambiguities and has thereby made learning that subject easier for blind students (Simches, 1964, p. 9).

Johnson (1961) states the problem very well when she

says:

As you come to know the blind child better, the importance attributed to the fact that he cannot see will gradually lessen. You will come to see his other characteristics and know his individual personality. Then you will begin to realize that this is just another child who happens to be blind. (p. 24)

Our blind student

In my view, Randy has a sensitivity to interpersonal relations that is equalled by few persons his age. No doubt this perspicacity is attributable in part to his parents, but then he has been away to residential schools as well. He facilitates social contact and seems almost to be regulated by some social compass or barometer. On occasions when I have arranged to meet him at a crowded public place he has quietly located me and politely expressed the hope that he has not kept me waiting. On another occasion, he asked Mrs. M., his Social Studies teacher, why she thought it necessary to inform his parents of his "bumper-riding" (catching rides behind automobiles on snowy roads). When she explained that she feared only for his safety, he accepted it with grace and good manners.

Proctors report that reading examination questions to Randy is a refreshing experience. He is very co-operative and will speak out directly to the reader to suggest a method of saving time. He possesses a good sense of humor, producing the correct volume of laughter or a discreet chuckle for a subtle aside. His good manners extend to his

expressions of appreciation for help given. These expressions are prompt but not effusive.

"Blindisms", or mannerisms resulting from his blindness, are not highly visible or distracting in Randy's case. He is inclined to walk slightly sideways because his residual vision is peripheral. He does look down, but his carriage is natural and his head is erect. His mother reports that Randy did "look blind" when he returned from his first boarding school but that he corrected these mannerisms by responding to gentle persuasion. His general musculature is good. If he continues with his school Physical Education program, his mobility training and horsemanship until he leaves public school, his posture and bearing should remain normal. Randy's attractive appearance due to his well-formed features, good grooming and proper clothing make him most acceptable.

An audile

Randy was introduced to me as an "audile". The Funk and Wagnall's New Standard Dictionary defines "audile" as "one with especially vivid perceptions or mental impressions of sounds". Randy does learn quickly by listening. Recently while I was reading a section of a literature test to him about a grandmother doing roof repairs, he expressed surprise that an old woman could manage the roof of the three-story building. When I asked Randy how he knew the height of the building, he replied

that he inferred it from the statements about stairs and the view from the roof. On checking, I found the evidence in the passage.

Randy will often respond with the answer to a multiple choice question before the reader has completed it. His perceptions thus appear clear and he is an excellent listener. I do not wish to give the impression that he is too precise, critical or exact. Reading with him is pleasant as he facilitates perception of humor. It is fortunate that Randy is an audile since he reads very slowly even from large print and types only about fifteen words per minute.

Evidence in Randy's cumulative record shows that psychologists measure his intelligence in the superior range. The tests used are verbal tests because the non-verbal portions contain timed manipulative tasks. He has often demonstrated speed in problem solving skills. On one occasion he experimented with a three foot high model illustrating the Pythagorean Theorem and in a few minutes demonstrated the idea to his friend, Barry, and me. Neither Barry nor I were, prior to his demonstration, insightful enough to readily complete the task.

The family

The father of the family is the news manager of a television station. The mother is a registered nurse. They have two more sons, B. who is two years older than Randy, and S. who is two years younger. Both are normally sighted. Their comfortable home is in an affluent neighborhood near a

country club.

Randy's blindness was not discovered until he was eleven months old. The mother had noticed that he was over-reaching, but it was a neighbor who suggested the child might have a vision problem. It was then that the mother realized that he did not see her when she approached him in his crib. Subsequent to realizing that his sight was defective, she was able to get medical advice and special help from the CNIB. Her training as a nurse enabled her to provide better than average assistance to her child as he grew through the pre-school years. The doctors reported that Randy had no central vision and about three to five percent peripheral vision which would probably deteriorate.

Troubles and travels of Randy

The CNIB helped to get Randy into the Regina kindergarten system. He was to be excluded on an age technicality, but the real reason, as reported by the mother, was concern over his ability to handle the lavatory facilities. His reception at the sighted Holliston Elementary School, Saskatoon, was better. His teacher for three years was Miss M. who later went into special education because of her success in this area. Randy covered the first two years of the sighted curriculum in three years. This rate could be considered most adequate considering his visual deficit. The only thing that Randy could not manage at Holliston school was the regular students' entrance doors. He was allowed to use the teachers' door with its lighter spring.

In 1965 Randy left his family to attend the Ontario School for the Blind in Brantford, Ontario. This separation was a devastating familial experience. The mother asserts that they do not want to go through that again. The children travelled by train with a guide. An exception was made in the case of Randy's mother who as a nurse was allowed to accompany the group and assist with other small children.

Brantford was a well-disciplined school according to the mother. The skills were well taught. Randy learned Braille and mastered the content of his subjects, but his time at Brantford did include some negative aspects. He was homesick. He was hospitalized with pneumonia and even suffered a broken arm which continues to cause him trouble.

Randy's next move was to Jericho Hill School for the Blind in Vancouver, British Columbia. Reportedly, the boy fared much better as this new school maximized the social aspects of education. As mentioned before, Randy has some sight and Jericho attempted to make Randy into a successful partially-sighted individual. Brantford, on the other hand, was turning him into a successful blind person, according to his parents. Although Jericho was a residential school, Randy did make good progress in all areas, judging by his records. Randy speaks with warmth and enthusiasm of his Grade IV teacher there. When I reported to him that she had spoken well of him during my visit there, Randy immediately wrote her a letter of thanks.

During this year at Jericho School he was contacted by Miss Scott, a social worker for the CNIB in Vancouver. She sensed the boy's potential and suggested to his family the steps to be taken to allow his greater development. As a result, Randy stayed in Edmonton the following year and registered in a low-vision class at Queen Mary Park School. At this school he completed Grades V and VI. He did benefit socially by staying in Edmonton with his family. However, both his parents felt that he was not being challenged sufficiently in class. As a direct result of this, plans were made to integrate Randy into his neighborhood school. That is, in fact, the point at which Randy came to Stratford.

What he sees

To see him moving in the crowded halls and around classrooms, one would not realize that he was blind, although three percent vision is noted on his Stratford registration form. Not only does he move about the school easily, but also around the neighborhood shopping centers. He can see his dog across the street and can generally keep a soccer ball in sight when he is playing. He can discern colors and can identify automobiles in traffic. He finds large print tiring to read but can manage by bringing the page very close. He says that viewing print is "like looking through gravel" and he reports difficulty in predicting the end of the line. He can read material printed with a nylon tip pen. Prisms and magnifiers do not help him to see. He has not

tried the TV Reader, an electronic print enlarger, which enables some partially-sighted persons to see print, although Queen Mary Park School is experimenting with one. He has mentioned that his vision seems more blurred of late.

Generally, Randy is allowed to consult a classmate quietly when directions are not clear to him. He did this during a Mathematics class that was being conducted by a student teacher who was not aware of his problem. The man took exception to this talking in class and sent him to the chalkboard to complete the question. Randy was able to execute the task and the student teacher was none the wiser. The class enjoyed the event and made no effort to apprise this person of the total situation.

The counsellor's role

As I perceive it, the duty of the counsellor is to ensure that the partially-sighted child derives the greatest possible benefit from his educational and social opportunities. Initially, acceptance is the greatest problem, but careful preparation of the staff and students, blind and sighted, can expedite this. The blind person's associates must know of his abilities as well as his handicap. The counsellor should see that enrichment of the curriculum is provided where necessary and also guard against too great a work load being placed upon the student.

The counsellor should provide liaison with the home. Blind children may be reluctant to voice their needs at

school. Troubles can be remedied while they are small if the teachers know of them. Counsellors of the blind, I believe, should take the place of the parent using the right amount of intelligent concern--somewhere between neglect and over-solicitude,

My ignorance

At the outset, I really did not understand what I as counsellor was supposed to do about or for the blind boy. Nothing came of searching in my manuals and texts for a formula or system to deal with the blind. The truth is that there was no real help (Scott, 1966, p. 27) and time was passing quickly. How was I to know if my client was learning or not?

Inexperienced primary teachers, I am told, are in much the same predicament in which I found myself. Their six year old charges cannot read or write, and the teachers have but ten months to complete the "magic" of making them literate. If they fail in their task, it is abundantly apparent.

Most of my fears were unfounded because I had not counted on the competence of the boy and his teachers. Anyone who is to teach a blind person must treat him like any other exceptional child and get to know him and his handicap. If only the novice understood, people are usually willing to help, especially a blind child. The two pamphlets in the bibliography by Scott ([1970]) and researchers

from the University of New York are excellent references for the uninitiated.

How do you teach the blind child?

The actual techniques used are dependent upon the amount of vision the person retains. All blind or low-vision students enrolled in public day classes require some degree of assistance from a teacher who has specialized in the education of the blind (Simches, 1964, p. 4). Most of the special skills required by the blind will have been acquired prior to integration into the sighted class. The task of the specialist will be to assist with the adjustment of the blind child.

Completely blind students will learn the three R's through Braille, listening and tactile skills. Most partially-sighted students can use regular textbooks with assistance of a magnifier or low-vision aid. Contrary to popular belief, partial sight can not be harmed by use (Barraga, 1964; Scott, [1970], p. 11). Students should be encouraged to read as much as possible. Scott goes on to say that because reading is very difficult and tedious for them, blind children will learn to remember after one reading. Their listening skills can be developed by practice. For maps, dictionary and diagram work, a magnifier can be used.

Low-vision children must learn to write legibly (Scott, [1970], p. 12). A variety of black pencils can be used, but black nylon tipped pens appear to be the best.

Typewriting may be viewed as a necessity for the blind.

Partially-sighted persons can often read their own work if it is typed on a primary typewriter.

Mathematics teaching is made easier in Braille by the use of the Nemeth code which is more concise and functional. Raised-line graph sheets, the abacus, various kits for geometry and teacher-made gadgets make teaching easier (Abel, 1957, p. 25).

For the teaching of Science, Fulker's book, Techniques with Tangibles, 1968, introduces the Thermoform machine which opens up many possibilities for teachers and students. Thermoform makes plastic duplicates of tactile drawings.

An alert teacher communicating with his students will find the blind student is quite willing to explain how he functions best (Scott, [1970], p. 16).

To school and home again

For the first week of school, Randy's brother, B., assisted him to and from school safely, but Randy soon learned to travel the route by himself. His classmates Barry and Nicholas would get on the bus first and save a place for him. This was done by placing books and lunch bags in such a way that no other student or adult rider could avail themselves of the seat. This maneuver required the boldness found perhaps only in the young of large metropolitan areas. The procedure was repeated at 3:20 p.m. when the children

returned home. At this time there was considerably more elbowing and pushing to get aboard as the buses were twenty-five minutes apart and everyone wanted to get the first bus home. In the spring Randy became so familiar with the route that he began hitchhiking by standing on the right-of-way and holding out his hand with thumb extended. Fortunately, his mother saw him soliciting rides this way and promptly put a stop to the dangerous practice.

Itinerant teacher, Mrs. North

Randy was fortunate in having Mrs. North as an itinerant teacher who provided a link between the elementary and junior high schools. The itinerant teacher generally instructs the children in Braille and assists with other subjects in Grade VI and then introduces them to the next grade at the beginning of the next term. Mrs. North provided Randy with some tapes and texts as they became available. She answered questions and offered suggestions to the teachers and the counsellor, most of whom had never encountered a blind person in the classroom. At the busy start of the school term there was little time to read books on how to instruct the blind. Mrs. North's experience, therefore, was invaluable to Stratford's staff and certainly helped in getting Randy integrated smoothly.

The first month

My questions about his first month at Stratford were answered by Randy as follows:

My biggest problem at first was that I was scared. I didn't know if I could get along. I worried about the teachers. I didn't know if they'd like me. I didn't know anyone and then I met Barry and he would read to me. He was friendly. Nicholas was helpful too and so was Roger. At the end of the first week I knew it would be okay. At the end of the first month, it was fun.

First friend

Barry was a small, compact, well-formed boy whose reluctance to co-operate or learn put him in the position of having to repeat the seventh grade. Although his performance the second time through the grade did not improve greatly, his teachers reported that he was much happier and that the mischief he organized was more for sport and excitement than malice. He befriended Randy from the first day and introduced him to all the delightful "Up the Down Staircase" activities and boyish pranks that make school days almost worthwhile for the average male child. A sort of symbiotic relationship developed between the two boys. "He is my eyes and I his brain", was the way Randy most adequately stated it. Through Barry he gained the acceptance of a group and spent pleasant noon hours rambling, wrestling, snowballing and having a boisterous time. Respect and loyalty grew between the boys. On one occasion Barry resorted to fisticuffs when a stranger mocked Randy. Few of the staff failed to notice the improvement in the two boys and few failed to encourage the friendship.

The homeroom teacher of Grade 7F, Mr. L., B.Ed.,
University of Saskatchewan

The general welfare of students, attendance and atmosphere are the responsibility of the homeroom teacher at Stratford. Randy was fortunate in having a young male Biology major for his teacher. The principal had briefed Mr. L. carefully and made suggestions regarding teaching. Mr. L. was relaxed and not at all apprehensive at the prospect of having Randy in his class. He provided Randy with cupboard space for his large Braille books and other impedimenta. Moreover, he allowed him to choose his seat among agreeable companions. The classroom climate engendered by this teacher was good; boys related well to him. Usually there were displays of live fish, amphibians and reptiles. It was a good classroom for Randy.

Fatigue

Mrs. D. M. Corrigan, Principal of Jericho Hill School, in a letter dated September 18, 1970, explained the fatigue problem which plagues blind persons in particular:

It sometimes appears that a partially-sighted student is at a greater disadvantage than a completely blind one. Some partially-sighted ones, especially at the adolescent stage, try desperately hard to conceal the fact that they have a handicap. Even for those who do not, the eye strain can in itself be tiring, and the effort to keep up with sighted students in general matters can exert a considerable strain.

Again, Miss Eileen Scott, of the Vancouver CNIB office, stated:

If you have partial sight you are tensed up all the time. This is an unconscious thing; you are trying to see more. A physician once told me that a person with low partial sight has as much extra fatigue at the end of the day as if he carried a hundred pounds of sand on his back all day. The fatigue is very real. These children go home exhausted from school (Scott, 1966, p. 31).

Randy's mother reported that Randy too was often very tired and she endeavored to regulate his activities. A heavy school day and a riding lesson in preparation for the horse show would overtax his strength.

Homework

Even in regular sighted classes it is necessary to guard against giving too much homework, especially in a departmentalized school where each subject is taught by a different teacher. This problem is regulated at Stratford by a daybook carried by a student. The names of absentees and assignments are written in the book. Students who have been absent can check the book on their return to see what has been done during their absence. Teachers can see at a glance how much work has been given for each day.

Homework or practice and review of skills is necessary in key subjects and the school authorities recommend about an hour per day. In spite of our efforts to minimize his work load, Randy usually had work to complete at home. His mother or another member of the family read the work from the text into a tape recorder.

The time problem was aggravated by the fact that Randy does not have that reading skill called skimming.

Most children glance through school work looking for points they need or wish to copy. However, blind persons have to listen to long stretches of tape or read whole portions of Braille before the desired point is found.

In our school, homework was given in Mathematics every night. Randy found that if he concentrated in class it was not necessary to do all the assigned practice examples at night. However, to avoid criticism in class, it was necessary to do all the repetitions. Literature selections caused considerable complaint since reading by Randy was a slow process although the material was in large print. He felt uncomfortable in the reading area because he had less control over the situation. As might be expected, each school subject required some daily review which increased Randy's dependency on the family members and which one would imagine increased the possibility of friction and stress. A five hour day is work enough for most children. Two or three hours of homework can have very deleterious effects for the sighted. Thus Randy's problems were great.

Keeping everyone informed

From rather bitter experience I found that everyone involved with the blind child must know what is happening. Parents, teachers and administrators can co-operate and accommodate only if they know about the ongoing activities and plans for future events. The telephone is the most convenient instrument for quick, informal chats, but letters, circulars, test papers and memos should be sent home as well.

I would suggest that parents and teachers should exchange visits at least once in each term.

It has been suggested that observing a child in his home would give the teacher a much fairer picture of the child. Often it was necessary for me to pay a brief visit to Randy's home on school business. On these occasions Randy usually served me a cup of tea and a biscuit. He executed the task with dexterity and dispatch and would then retire to the yard to play with his friends. It was there that I discovered that he could see well enough to play soccer and that he could recognize his dog some distance away. My observations of him in these familiar home surroundings gave me a much fairer estimate of his ability to become independent.

Typing machine

One of the directions from the itinerant teacher was that Randy should type his assignments and get regular practice on a machine to improve his typing speed. His handwriting is legible, but writing is a laborious task for him. In this regard it should be noted that his prognosis, according to his mother, is that his vision will deteriorate. Writing then will be a necessary skill, but typing will be the more important medium of communication.

In a large school system small problems are compounded. Such was the case in securing a used typewriter. The formal request was made to various departments of the school system: for example, special education, guidance,

business education, low-vision and purchasing. Finally, after months of negotiating, our principal acquired a used primary machine that Randy could use and read.

Scheduling regular practice periods now became a problem. Mrs. B., the Language teacher and former high school typing teacher agreed to help, but Randy could not read the typing exercises. Mrs. Milner, a secretary at Stratford, solved the problem by typing the exercises on the large primary machine which Randy was able to interpret. Randy did not take full advantage of his typing opportunities. The plan was that he was to place copies of the exercises in the counsellor's mailbox at regular intervals. He did so only when pressed. In this regard I am not sure whether he was too busy or just not interested. However, his typing proved quite acceptable and speed continually improved.

Examinations

Evaluation of the students seems inescapable in schools. Stratford, like most other schools, had daily, weekly and monthly tests, but most important were the common tests given in academic subjects at the end of October, at Christmas and again at Easter. The common examinations were objective-type questions, generally multiple choice and machine scored, of 60 to 90 minutes in length. The resulting marks were put in rank order and converted to percentages. Stratford had over 200 students in each grade and for Grade VII's this was the first time that they had been

compared objectively. There was generally great unhappiness among those who fell in the bottom two quartiles, but this was not the case with Randy, who always remained in the top 10 percent.

The common tests had to be read to Randy and at first this did cause problems. Mrs. North, the itinerant teacher, handled the Mathematics and the teachers and the counsellor read the others. With multiple choice questions it is difficult to remain objective and not communicate the correct answer by change in emphasis or tone. At first 90 minute tests took almost double the time, but the readers learned to preview the test for ambiguities, to record the choices on the paper and transfer them to the machine scored answer sheet later, and to change readers every 20 or 30 minutes. At the end of the year we no longer needed Mrs. North, and a neutral Mathematics teacher, Mr. L., volunteered to read the paper to Randy. By this juncture, Randy was able to finish in the required time with the now expert help. It may have been better to transcribe the tests into Braille so that Randy could have taken them independently, but the service was not available.

Trouble in the Crafts Room and other places--plot evolves

In addition to Barry, there were Roger and Nicholas to help devise mischief in the crafts room. Many mysteries remained unsolved regarding decapitated puppets, flattened clay figures and glue-covered desks, which only those "innocent looking pirates" could have explained. Their

reckless disregard for rules, art materials and the rights of female classmates led to complaints that I as counsellor could not ignore. While investigating the boys, I found a restless, reckless energy characterized the group. I even found one of them walking on the tops of counters and desks. I felt that something should be done to redirect their energy into more socially acceptable channels.

Spring troubles

I might conjecture that the first warm, sunny days after a long Canadian winter affect Grade VII boys in an unusual way. Our four "pirates" were no exception. I received so many complaints about their snowballing, pushing and rough play from attractive, vocal, female classmates that I had to pursue the boys and order them to desist and report to me for discussion of the situation.

Spring planning

At this time, I was training for the Edmonton Journal Five Mile Road Race, and it occurred to me that the four little "pirates" could do the same. Nicholas' British parents were in favor of their son's taking part in the race. That was one trapped. Nicholas helped me put the case to Roger and Barry. I agreed to help keep them out of trouble if they would participate and provide companionship for Randy. I next approached the blind boy's parents with a plan for daily training in easy stages. They accepted the idea wholeheartedly as a chance for some physical training

which they felt he needed. I got the boys to commit themselves to training for and finishing the race. They agreed among themselves and in front of their parents. This was important because distance running is arduous, painful and monotonous. Small, middle-class boys tend to be coddled and over-protected, and I feel these verbal commitments were what made them carry on when the training became difficult. They could not break their word.

Spring training

The daily mile was the first target and took plenty of coaxing to accomplish. I asked them to train at noon with me--around the school track--but they all claimed that they ran to or from school or with their parents. Finally, I insisted on daily demonstrations and would not listen to excuses. After a shaky first month, I could see that some improvement was being made but really had little hope of their running a full five miles in a gruelling race. At two miles and six weeks of training, I was experiencing despair but continued to discuss, coax and plan with them. At intervals I would take them to the University track or to the Jasper Place Bowl for timed work on a measured distance so that they could judge their own progress.

Four weeks before the race, on a bright Sunday morning, I met the boys early and by nine o'clock we had completed our first five miles together. After which we went for a swim. I was delighted with their performance and I really did not mind when they tried to drown me because I

had been an exacting track coach. My wife served us breakfast and the boys enjoyed the view from the fourteenth floor apartment and a televised ball game. This was another of the many occasions when Randy's blindness went unnoticed, probably because his deft movements about the apartment were easy and natural. My wife knew that there was a blind boy in the group but did not realize that it was Randy.

Over the route

Knowing the route helps a runner and there were five of us who needed help. I chose a Sunday two weeks before the race at 6:00 a.m. because the route runs from the center of the city northwest to 66 Street and the traffic is generally dangerous. The boys were not happy with the time or the rainy weather, but Randy's parents brought them. Nicholas insisted on wearing his raincoat and it did cause problems. The boys complained eloquently, but they finished the distance in fair time. We repeated the route again a week later in scorching heat. We tapered off the final week of training with three miles a day.

Randy's vision seldom caused problems--once when he turned to complain he almost hit a post, but accidents like that happened to all of us. Barry did the least complaining and always ran faster and better, perhaps because he was a superior athlete and enjoyed running. Randy took his directions from the other boys who guided him subtly. He stumbled occasionally. I watched him constantly because I

feared he would come to harm. I know now what the boys knew then; that Randy could navigate with a minimum of assistance.

The "Journal" Five Mile Road Race

May 24 dawned overcast and with a cool, dry wind from the north. Not at all a nice day for a race, especially when we had to face the wind. Eleven o'clock phone calls to the boys revealed they were ready. We met at the starting point at 1:30 p.m. Nervousness was quite apparent among the boys. They were reluctant to warm up and declared that they could run 10 miles if necessary.

With the two o'clock starting gun, they sprinted off with the field of some 120 men, and I did not overtake them for one-half mile. At a distance of one mile I ran ahead, and my monitors on bicycles kept Randy in view to watch for dangers and ensure that he did not miss the turns of the route. For small, young boys they all did well. Barry finished in approximately 37 minutes, Roger in 40 and Randy and Nicholas in 45. I was very proud of them. Many of the other contestants had given up before reaching the finish line. Running five official miles is a gruelling feat of endurance, for one can neither rest nor sit down. For their efforts the boys received a box lunch and a 1970 Road Race Medallion. They also had the satisfaction of knowing that they had undertaken a difficult task, three months back, and had carried it to completion. At 13 years of age, this can properly be regarded as an accomplishment.

Publicity--display

No mention was made to the race officials or to the press about a blind boy taking part, but the boys' participation in the event was publicized over the school public address system on the following school day. In addition, their names, running numbers and medallions were placed in the large glass display case near the front door and were left there for weeks. The purpose of the display was to advertise the idea that a blind boy can take part in athletics.

Mr. John Bright, Vice-Principal

Another influence in Randy's school life at this time was Mr. John Bright, our vice-principal. Mr. Bright is an American negro, a former track and basketball star who played professional football and won almost every sport award possible in Canada.

Discipline was a simple matter for Mr. Bright: he frowned at misbehavior and smiled at appropriate behavior. The day after the boys completed the Five Mile Race, Mr. Bright wrote this letter to their parents:

I would like to express the congratulations of the staff and student body of Stratford Junior High on the fine showing made by Randy (Barry, Nicholas, Roger) in the recent Journal Road Race.

The race was a real test of courage and endurance, and he not only completed the race, but did so in a very commendable length of time.

I am sure that this fine display of sportsmanship was due in part to you as parents, and you are to be commended on a job well done, sharing with him a real sense of accomplishment.

I hope that he will maintain his present interest in a fine sport.

The boys were delighted to have a letter of approbation for their athletic achievement from such a hero.

The Principal, Mr. A. K. Brimacombe

Our principal is a leader among administrators. He is always ready with trenchant questions. He readily admits that his policies are not always popular, but on cloudy issues he most often turns out to be correct. He has the courage of his convictions, and because of this has the respect of his teachers. In earlier days he successfully led a teacher strike against massive odds and his resolve has not lessened much since that time. He has little patience with parents who give children choices where there should be none, and who do not provide firm leadership.

Randy was fortunate in having this man for a principal. Mr. Brimacombe planned his program carefully and checked his progress regularly, taking great pleasure in his accomplishments.

The school, Stratford Junior High, 8715 - 153 Street,
Edmonton 51

This building is one of the new windowless schools, built for less than the government grant. Economies were effected by making the classrooms and gymnasium a little smaller than usual. Apart from that, the three-storey building is well planned, tastefully painted and brightly lit.

Library books, science equipment and audio-visual supplies are in abundant supply. Stratford was one of the first Edmonton junior high schools to purchase its own videotaping equipment.

The timetable consisted of 35 periods per week; a seven period day of 42 minutes each: four periods in the morning, followed by a noon recess of 80 minutes and then three periods in the afternoon.

Randy's week of 35 periods included three periods of Literature, four of Language, five of Science, four of Social Studies, five of Mathematics, two of Music (Choral), three of Art, three of Crafts, two of Health and four study periods. Physical Education was considered too dangerous to be included in his program.

Comments made by Randy's teachers about his school subjects after Grade VII was completed

Mr. M., Mathematics, Final Mark 80%

No special attention was required by Randy even though the text used was not in Braille. (The wrong Braille text arrived late in October, 1969.) He generally understood the concept when it was explained for the first time. Some of the students required numerous explanations and these served as a review for Randy.

Mr. L., Science, Final Mark 80%

Grade VII students take general Biology. Randy could see well enough to observe dissections of worms, crayfish, frogs and grasshoppers, although at times he had to get uncomfortably close to the specimen. Apart from the usual handouts, most notes were

dictated. Randy wrote his notes legibly and was able to study from them.

Mrs. B., Literature, Final Mark 80%; Language, Final Mark 70%; Music, Final Mark 75%

I found Randy a definite asset to the class. He was friendly, pleasant, likeable and popular with his peers. He received top grades in both Literature and Language. Because he is intelligent, he comprehended new material very quickly in a lecture-type situation. Randy's notes were either written or mimeographed for him.

Mrs. M., Social Studies, Final Mark 90%

The 90 percent seems to require some explanation.

Mrs. M.'s course tended to be "factual" and this is Randy's forte. Mrs. M. used a nylon tipped pen for darkening outline maps and printing words large enough for Randy to see. Classmates read to him and he had a special textbook to take home when necessary. The taped text was also useful. After the first three days of school the group accepted him and work proceeded smoothly, Barry, Nicholas and Roger, as well as the rest of the class, were always helpful. Mrs. M. conversed with Randy daily and mention has been made of how his mature outlook impressed her.

Mrs. S., Crafts, Final Mark 70%

This mark is generous and more indicative of ability than achievement. When the projects were of a tactile nature, such as clay modelling, Randy could do well. He could fashion and shape small animal figures such as mice, but he seldom got involved enough to demonstrate his full ability.

While the low work output may be regrettable, Randy probably enjoyed these periods more than any other. There was plenty of mischief afoot and the "pirates" were in the thick of it. Randy gained the acceptance of the group by joining in their pranks. On one occasion, Randy and two others were sent to the vice-principal for disciplinary action because they had decorated Randy's hair with pink reed basket material. They got off lightly; the vice-principal could not help but smile at the ridiculous headdress they had made for Randy. Crafts should bring joy to the craftsman: Randy and company had a good measure of it. This was probably the first time the boy experienced the excitement of getting into mischief with a group of fellows and gained acceptance while doing it.

Mrs. O., Health, Final Mark 75%

Mrs. O. was not available for comment, but Randy reported that the work was done orally and caused little difficulty.

Miss H., Art, Final Mark 55%

Miss H. reported that Randy was quiet and withdrawn at first, but under the influence of Barry soon joined in paper-throwing games and various other activities that distracted the class. While Randy was never rude as Barry was, he certainly supported him. Randy completed tasks only when the teacher insisted. He showed some skill at three-dimensional work--clay work especially--where he could feel

the materials. Miss H. always checked after the assignments were made to ascertain whether Randy understood the task. Barry soon took over this checking routine and Randy showed some resentment of any attention shown by the teacher.

Books for the Second Term

Another duty of the counsellor is to assist the itinerant teacher in compiling a list of materials required for the following year. Braille transcriptions must be ordered six months in advance. Asking teachers and planners to make decisions six months in advance is difficult. Texts, courses and personnel change frequently and this compounds the problem.

Decisions made for Randy's five academic subjects after many hours of discussion were as follows:

1. Social Studies: no text, course to be experimental, on values
Geographic Areas: Africa and Asia, using novels and many texts .
2. Mathematics: Seeing Through Mathematics, Book II, order Braille copy
3. Language: some tapes to be made available
4. Literature: no text required, tapes available
5. Science: experimental, no text available

Music Plans for 1970-71

Mrs. North in the spring of 1970 requested that Randy be considered for the Music option next year. Miss K., our

instrumental music teacher, met with Mrs. North, Randy and the principal to discuss the possibility. Later Miss K. did an evaluation of Randy's musical ability and recommended that he play the trumpet but gave him his choice of instruments. He chose the saxophone.

Miss K. put in considerable time and effort selecting and marking music to be transcribed into Braille in Montreal for band commencement in September. In the meantime, a search was started for a saxophone tutor to familiarize Randy with the saxophone during the summer.

Awards Night, June 4, 1970

Stratford School personnel try to encourage excellence in all school activities by giving trophies, crests, pins and various other awards to over one-third of the students. Randy received an Honor Pin for having an average of over 80 percent on the year's work. Only seven such awards were given out of 200 students. He also was voted a General Proficiency Award by the students and staff for participation in athletics, for citizenship and for academic excellence. The proficiency award is the most prized. The student must have made a contribution to the school and this is the accolade given.

John Lunan and the summer of 1970

When the first delightful days of July arrived, Randy had a new, gold-plated saxophone and a 16 year old music tutor of high calibre in the person of John Lunan, a

former Stratford student. The two boys worked together splendidly. In addition to musical ability, both have good manners and consideration for others. Randy soon became familiar with his new instrument and was able to play simple melodies.

When the counsellor visited with Randy and his family toward the end of the summer, he found a happy boy enjoying his home, his family and his dog. Randy could look back on a school year filled with friends, the race, two well-earned awards, and now a new skill on the saxophone. He was playing popular tunes in quite acceptable style and was enjoying every minute of practice. To add to this, Randy has a horse and went out to the stables every day. The best part was that there was no threat of separation from his family in September. Randy did not have to go away to school. He was at home and at Stratford.

CHAPTER II

RANDY IN GRADE VIII

The writer spent July and August of 1970 searching the shelves of the University of Alberta Library for the latest materials to include in a revision of a booklet, "The Blind Child in the Sighted School", written by Dr. E. E. Fox, former Director of Special Education for the Saskatchewan government. Over 100 letters were sent to institutions in Canada and the United States. Valuable information was gained for use during Randy's Grade VIII year.

Physical Education plans

As pleased as Randy's parents were with his school performance in Grade VII, they had expressed some disappointment that he was not included in the Physical Education program. My summer readings showed me that he could well be in a full program. Belenky, 1955; Buell, 1966; Daniels, 1965; Pelone, 1960; Williams, 1964 emphasized the need for training in physical education for the blind. Armed with this knowledge and our Journal Road Race experiences, I approached the Physical Education teacher, Mr. C., and to my surprise he accepted Randy without hesitation, provided that I obtained permission from our principal.

My assurances that Randy and his parents were in agreement about the Physical Education program gained the approval of the administration, provided that reasonable precautions would be taken. These precautions, in my mind,

included at least a protective helmet such as those worn by players in baseball or hockey. After careful discussion with the parents, an official letter from the school was sent to them regarding protective headgear, which they did provide. However, Randy ignored our requests to wear it. Mr. C. explained that it did not seem necessary after observing the boy carefully, and allowed Randy to proceed with the games. Personnel at the CNIB agreed with Randy that protective headgear or anything that would make him different was unnecessary. They expressed the feeling that partially-sighted persons do not have any more accidents than sighted ones and that if they did, the bruises and injuries certainly do not hurt any more.

The students accepted Randy well in Physical Education as elsewhere. He took his place in relay drills and did quite well, even though he could not make many baskets or score many points. He was alert and did not procrastinate or impose on others. Many of the sighted boys cannot follow the simple routines of being punctual, having a clean gymnasium uniform and socks, showering, and simply getting along, but Randy met these requirements easily.

Normal at last

The addition of Physical Education to Randy's timetable meant that he was carrying a full program just like all the sighted students. During the preceding year, Randy had a "catch-up" period to minimize the homework, but

frequent checks revealed that it was seldom onerous. Besides, all the other students were expected to do about an hour of review to maintain their marks.

Parent-teacher conference

The first parent-teacher conference was called when most of the confusion of the beginning term had subsided. All persons involved were asked to be there as a team to hear the problem outlined. Permission was obtained from the principal and the following notice for a brief noon meeting went out:

CASE CONFERENCE

TO: Mr. B.	Mr. L.
Mr. C.	Mr. A. M.
Mr. F.	Mr. D. M.
Mr. G.	Mrs. N.
Mrs. H.	Mr. S.
Miss K.	Mr. W.

DATE: Tuesday, September 22, 1970

PLACE: Library, Stratford Junior High School

TIME: 11:25 a.m.

SUBJECT: RANDY - 8C

Teachers are asked to bring lists of books they are using. Perhaps tapes or Braille books may be available. This meeting is to be a brief introduction and idea exchange.

Conference results

Randy's mother was able to see all of Randy's teachers except one. They were an impressive group and as each one spoke, understanding and confidence grew. The dozen or so people dealing with Randy needed a chance to ask

questions and the conference made a good start.

Lunan returns to Stratford

At the case conference Miss K., the band teacher, asked for help regarding music for Randy. No way could be found to make the band music available to him quickly enough so that he could keep up. A volunteer could help him learn the pieces by ear, Miss K. suggested, because Braille and enlarged copies were not practical. John Lunan was taking a full program at a high school some 30 minutes away and could not be expected to come back to his old junior high during the band periods.

Later on, because of a flexible program, arrangements were made for John Lunan to be placed on a special project at noon which would enable him to come to Stratford. Special projects are entered upon by gifted students who wish to pursue their special interest under the guidance of a department head. They rather resemble research projects at the university level. John's project began on November 25, 1970 and required him to come to Stratford once a week to assist Randy with his music. The plan went so well that the following letter went out to Mr. Glen Thamer, Director of Music at Jasper Place Composite High School:

November 26, 1970

Mr. G. Thamer
Jasper Place Composite High School
Edmonton, Alberta

Dear Mr. Thamer:

Thank you for providing special assistance in music for Randy, our blind Grade VIII student. Both boys, John Lunan and Randy, enjoy their Wednesday noon hour session and the work on the saxophone is providing Randy with a preview of the coming week's band program, enabling him to keep up with his class.

Miss K., the band instructress, and the Stratford staff, appreciate these efforts very much.

Very truly yours,

C. Bailey, Counsellor

Ad lib. and Christmas carols

How they communicated seemed a mystery. The music improved with each repetition. Randy would listen and then repeat and next time through would add variations of his own. A few weeks later as Christmas approached the boys were playing Christmas carols that had the other students humming.

Trail bike, 1970

A trail bike is a rather small motorized scooter designed for use in the back country. On October 5, 1970, Randy, with his cousin behind him, attempted to speed on one of these tiny vehicles. Unfortunately, they hit a bump and

both boys were thrown from the bike. Fortunately, their injuries were minor, but they were numerous and abundantly apparent. Randy required stitches on his chin, lost one tooth and damaged several others. He did resemble the typical "battered child" because of the multiple bruises and lacerations. The cartilage in his nose is still broken. The incident is mentioned because it shows what a visually-handicapped boy can or will do. Had they not raced, there would not have been an accident, but they did have fun. Neither boy missed school nor complained, and Randy took part in the Environmental Studies excursion two days later in spite of a nasty turn in the weather.

Environmental Studies

Because Randy was capable and perceptive, the counsellor arranged for him to be included in a series of Environmental Studies being conducted by a young artist interested in training in awareness. The students were a select group sent out on their own to study specific areas in the city after suitable training. They were to investigate, discuss and record their impressions. Films were made of the activities and the students enjoyed the work. The project was part of a research project conducted by our school system by the central office. Two of the films were shown on Channel 11 television in Edmonton.

Cranmer Abacus

On August 3, 1970, Miss Doris Gaetz, teacher for the CNIB, agreed to teach Randy the four basic operations on the Cranmer Abacus after school during the coming term. This pocket-sized abacus has the beads held steady by soft foam rubber. The abacus is speedier than writing and better for the visually-handicapped and serves as a one-hand computer. Randy's mother took him to classes after school in October and he completed the short course with ease. He claims that he practised computations in the bath after riding his horse.

There is a good article in The New Outlook, June, 1970, on developmental technique for the Cranmer Abacus. It is just as useful for sighted persons.

Barry leaves--pirates split

In February Barry's family moved to another part of town and Randy lost one of his closest companions. The loss meant long, lonely noon hours. Roger was transferred too, and Nicholas was in another group. One noon hour was taken up by the saxophone lesson, but Randy eventually filled the time by going home for a hot lunch. He found new friends perhaps more intellectually stimulating and capable, but not half so daring, interesting or loyal as Barry.

The strike

Our school was closed late in October by a strike of the caretakers, and I took the opportunity to fly to Vancouver to see how Jericho School for the Blind was operated. Getting

permission to leave was quite an experience. My principal agreed readily, but the head of Special Education, of Guidance, and of Staffing, all had to agree. They weren't difficult to convince, but rather hard to reach. I placed a long distance call to Vancouver to the principal of Jericho School who gave me permission to visit when she heard my explanation. When all clearances were obtained, the fog almost vetoed the journey by reducing visibility to zero at the airport. Twenty-four hours after I arrived in Vancouver the strike was settled, but I stayed an extra day.

Mrs. Carrigan, the principal, received me at Jericho Hill and introduced me to the staff. My interests led me to the Junior High section where I met Mr. Neil Warner who teaches Mathematics and other subjects. His pupils have truly individualized programs and I spent the better part of two days observing, questioning and recording what I saw.

Mr. Warner included me in his explanations to the children, some of whom remembered Randy. I saw demonstrations of the Braille typewriter, the Braille slate and how the Nemeth code is used. We discussed the problem of whether to Braille or not to Braille with the partially-sighted and many of the time and money savers that a teacher of the blind could use. Mr. Warner insists that the blind children be treated like others, with understanding and firmness.

Cluttered is a word that might describe Mr. Warner's classroom, but cluttered in a good sense because he has

everything from a moose head to a bicycle exerciser in it. Children are always present and working with models of flowers, fuse boxes, light switches, appliances, anatomical specimens and anything that a child should know about. Objects are moved often and the children have to overcome the "touch taboo" to investigate with their hands and become independent. Mr. Warner finds that well-oriented persons can do Mathematics and mobility training with ease, and works on these problems continuously.

From my two days' observation of Jericho Hill, I would say that it was a successful school. The blind children move about the campus freely and safely. They are greeted with smiles and cheerful greetings at meals. For multiple-handicapped children especially, Jericho provides with warmth and generosity services that would not be available at home or elsewhere.

Simma Holt, Vancouver Sun

The success of my Vancouver visit was due in large part to the help given me by author-reporter Simma Holt, who made available to me the important stories on the blind for the previous years. In these documents I found some inspiration for a vocation for Randy. I also learned about the Western Institute for the Deaf and its efficient leader, Mr. E. Casey, who received the man-of-the-year citation in 1970 for his work with the deaf.

Mention of the WID may at first appear extraneous,

but Mr. Casey has worked with the blind as well in counselling. His rehabilitation programs had by 1970 taken some 200 deaf people off the welfare rolls and he was working and improving the position of every deaf person in British Columbia by co-ordinating all the deaf organizations. His preschool training program by itself was well worth examining. All this was quite revealing to a counsellor who was worried about one partially-sighted boy.

Simma Holt's papers led me to the University of British Columbia and the Crane Memorial Library with its director, Paul Thiele. Here was a very modern, well-equipped place where a partially-sighted person could meet with sighted friends and with a minimum of difficulty study whatever he chose to at the University. Mr. Thiele spent hours answering questions and enlightening me generally on conditions in the world of the blind. His library practises social librarianship which makes it a very effective source of information. A description of the Crane Library is given in Chapter III.

Mr. Hans von Stackelberg, February 16, 1971

Because Randy is exceptional, the counsellor requested a special assessment of Randy's intellectual ability. The school psychologist who did the testing was a most agreeable man with the impressive name of Hans von Stackelberg. He classified Randy as very superior. The diagnosis was given as follows:

All sub-tests, with one exception, were scored well above the mean. Only vocabulary was down to average. His ability to handle arithmetic problems without the use of a pencil and paper, or even stimuli cards, was outstanding and earned maximum credit. Reasoning ability and comprehension and general information, knowledge were all well above-average.

A report like this should be of assistance to his vocational counsellor.

To the Tower

As the high snowbanks melted in the spring of 1971, I put into operation the second part of the Lunan Project--to have Randy walk to the high school at noon for his lesson and return. He already knew part of the route; the last half we took by four easy stages as the sidewalks cleared of snow. The first stage we motored to within 500 yards of the school, walked to the crosswalk, around the parking lot and negotiated the doors and the elevator to the sixth floor of the Tower at Jasper Place High School where John Lunan was waiting in the music room. At the end of April, Randy made the journey alone. He was a little late, but it did involve a three mile return walk, carrying a large saxophone in a case, plus music and a bag lunch, and the 30 minute lesson, all in the space of 90 minutes. The route had been carefully studied by the counsellor, who was relieved when Randy was able to complete it safely. Randy might have been able to do it all on his own, but it was important that the authorities at the school know him well. The plan was that he continue his weekly journeys there in Grade IX so that by June, 1972

he will be familiar with his own high school and be able to register himself and be with his brother B. again. Only this time in a more independent manner.

In order that Randy be known at the high school, the counsellor arranged for Randy to meet all the administrators, especially the first assistant principal who generally has charge of exceptional students and is a person of considerable sensibility. In addition, a file was opened on Randy in anticipation of his arrival and the following letter was sent.

March 31, 1971

Mrs. W. E. C. Nielsen
Assistant Principal
Jasper Place Composite High School

Dear Mrs. Nielsen

Re: Randy H., Grade VIII
Born: November 11, 1956

This letter is to introduce you to Randy. Although he is legally blind, Randy has some peripheral vision which he uses to the full.

Mr. Thamer has arranged for Randy to be tutored in your music department by John Lunan, a student, every Thursday noon. The purpose of the lesson is to preview saxophone music to be taken in Randy's band class. In addition, the visit serves as mobility training. When the weather improves Randy will come on his own.

Randy is a very capable student. He received an honour pin for his grades last year as well as a proficiency award presented by the Students' Council and teachers.

It is Randy's wish to be considered and treated just as any other student and he is delighted to be taking a full programme (including

Industrial Arts and Physical Education).

Randy can read large print edition books as well as type or write his essays and language work.

As an enrichment programme, he has taken part in the Environmental Studies programme at D. S. MacKenzie School this term. Randy has learned the Cranmer Abacus at the C.N.I.B. and this will serve as a slide-rule later.

Out of school, Randy enjoys riding best. He can groom a horse and clean a stable. At present, he spends about seven hours a week on horseback and looks forward to owning his own horse.

His poor vision is something of a nuisance to Randy; he does very well in spite of it. You will find that he makes friends easily and will soon be popular with everyone around him. Randy does need some help with taped material and student helpers on some items. Generally speaking, however, Randy can manage by himself.

Mathematics is handled in Braille books which are readily available to him. The itinerant teacher looks after this.

Randy's excellent training coupled with his engaging personality make him an asset which I am sure you will enjoy having at your school.

Yours truly,

C. Bailey, Counsellor

Mobility and Public Relations Officer

On Thursday, May 6, 1971, Mr. M., Mobility and Public Relations Officer for the CNIB, visited our school to assist with Randy's training. Specifically, he was to check the mile-and-a-half route to and from Stratford Junior High School to Jasper Place Composite High School for safety factors and shortcuts. This was the first time Mr. M. had

seen the boy and he used the hour-and-a-half to get acquainted. Randy had been making the trip once a week at noon to take a music lesson from a volunteer student in Jasper Place's music room in the Tower. Mr. M. and I walked the full distance to the high school and there incidentally met several school officials who will be important in Randy's school life.

Mr. M. was impressed with Randy as a person and with the way he was managing this situation. Randy, because of time limitations, had to eat his lunch during the walk. This was not such a hardship as he walked over to the Meadowlark Shopping Mall almost every noon and most of the students ate their sandwiches as they walked. On this day, Randy was quite hungry, but offered to share his sandwiches with us. This display of consideration for others was one of the things that made him such pleasant company.

Randy walked along as a sighted person would, and even Mr. M. was apprehensive at times when we were passing jutting steps, fire hydrants concealed by hedges, alleys, traffic lights and other hazards. Mr. M., who is himself legally blind and is familiar with these problems, suggested that Randy use a white cane. My perception was that Randy did not readily accept things that made him different from other students. On the whole, the Mobility Director regarded the music and mobility program as good experiences. Next step--a journey downtown.

Miss Sherryn Groot

The staff of the low-vision classes at Queen Mary Park School held a meeting in January, 1971 to discuss the topic "The Low-Vision Child". Miss Sherryn Groot and her mother, Mrs. C. Groot, were well-qualified guest speakers. Miss Groot is completely blind and teaches sighted children in a junior high school in Edmonton. Mrs. Groot teaches an elementary grade in the same school. She is skillful at transcribing Braille and can demonstrate most of the equipment used by the blind. Both women were positive in outlook and made the meeting an informative experience.

Counsellors' seminar, CNIB, April, 1971

The CNIB held its first seminar for counsellors in Edmonton. It was a splendid opportunity to have questions answered and to see the whole range of services offered by the Province of Alberta and the CNIB. Five employed registered blind persons gave presentations on their particular jobs.

Get a haircut!

Stratford has dress regulations based on the premise that since the school is a place of learning, fashions of clothing or hair that interfere with the process should be discouraged. When Randy's hair touched his shoulders and covered his eyes, he was summoned to the principal's office and ordered to get a haircut and report back. He complied with some reluctance, but nonetheless he complied, and I was

greatly relieved. Rebellion may be fashionable in the young, but in this case I believe it would have been unwise. The principal had the interests of the boy at heart and only very extreme cases were checked.

No race in May, 1971

Because Randy and his friends had done so well in the first Five Mile Race, many expected him to run again; however, he was not interested. His full Physical Education program, the weekly mobility walks and daily riding used up plenty of energy and provided good muscle development. The Journal Race seemed too great a burden and no one insisted that he enter it again.

Easter examinations--in record time

The rather important common examinations during Randy's first year in Stratford were usually long and tiring. However, in 1970-71, by previewing the tests, starting early and employing the boy's subject teacher or a neutral expert as reader, the tests were completed usually in less than the required time with little hardship for anyone. The counsellor usually took over the reader's task and the reader was glad of the change. Answers were placed on machine score sheets later when there was less chance of error due to haste.

Awards Night, June 3, 1971

The Hon. Dr. J. W. Grant McEwan, Lieutenant-Governor of Alberta, saw Randy receive his honor pin for having an average of over 80 percent. It was the second consecutive year Randy had won the award. Despite the fact that the competition was keener, his marks were even better than in 1970. Randy's parents were obliged to be out of town that evening, but his brother B. ably represented the family. Randy did not receive a proficiency award as he had done last year, but no person has received two yet. His horsemanship out of school had brought him some fame as the Kinsman Award will attest.

Kinsman Award, Friday, May 14, 1971

Randy was awarded the Outstanding Achiever Award for his triumph over a major handicap. The award was made at the Kinsmen Sports Celebrity Dinner attended by some 1,550 persons. Randy was competing in the Northlands Horse Show at the time and his picture and three separate items were run in the Edmonton Journal about him. The main one reads as follows:

What the 1971 Kinsmen Dinner was really all about was a 14-year-old boy and the highlight was the emotional ovation awarded Randy . . . Kinsmen Salute to Youth Outstanding Achiever.

The standing and thunderous ovation lasted at least one minute as the crowd of 1,550 watched the almost totally blind boy . . . walk to the podium, receive his award and smile "thanks". He sobered up the stag affair.

The crowd was told of his achievements. About how he had to spend his early grades 2,000 miles from home for special schooling. And of how he made it into a regular junior high school on a one month trial basis and how he ended up with the third best marks in grade seven that year. And they were told he learned to play piano by braille and how he took up the sport of horse jumping and succeeded at it, despite his lack of sight.

The horse shows, 1971

Randy is growing quickly and his muscle development is good, because he rides about seven hours a week. As mentioned previously, he enjoys working around horses and can groom and feed a horse, as well as clean the stable. His entry in the Northland Horse Show was a logical thing; there were other entries from the stable at which he boards his horse. Randy also entered the Red Deer Horse Show later in the month. He did make a good showing in both contests but did not make the finals. At one stage in the competition he fell from his horse when it turned quickly instead of making the jump. Like a true horseman he remounted and continued. His mount stands 16 hands high and was spoiled for jumping by its previous owner, but Randy has almost succeeded in retraining it. Thus hunter has jumped as high as five feet, three inches, but most of the time it jumps at the four foot, three inch level. Randy reported that he hopes to tour the United States during the summer as a rider sponsored by the Arabian Horse Association.

Locks and lockers

During Randy's first year he was allowed to store his impedimenta in a classroom cupboard. His coat was hung with those of the other students in the halls on numbered hangers. During his Grade VIII year Randy still used classroom space in the mathematics room, but used a regular small locker as the others did, with the exception that he used a padlock and key instead of a combination lock. He did attempt to use a combination lock at first, but it was not practical or convenient because he had to wait until a friend could open it for him. I do not think that Randy ever forgot his key.

Large print

Because Randy had not really tried large print material while at Stratford, we obtained two large print editions of the Reader's Digest for him. We also sent letters requesting large print material to various publishers and the Crane Library at the University of British Columbia. The best response was from Paul Thiele, head of the Crane Library, who sent a copy of the New York Times, Large Print Weekly, which Randy took home for trial. The mother reported that: "It was too tiring to read. It moves. Millions of dots appear in the visionless area of the macula. It was like seeing through gravel." Randy himself reported that The Times might be worth reading for special timely articles when he wished to get the latest

facts independently. As for the Large Print Digest, it was a lot of trouble and slow work to figure out the words.

"Large print is very tiring", he said, and he would by far prefer to read Braille.

Reading test, March 30, 1971

Mr. M. conducted a reading test for Randy using a section of the large-type Reader's Digest in March. While the boy's comprehension was good, the timed section revealed that his reading rate was approximately 30 words per minute. This would seem to indicate that large print material would not be useful except, as mentioned previously, when it was necessary to get information independently. On special items it might be worth the extra effort.

According to my record

Many of our students developed a set of noon hour activites which began with an illegal bus ride to the nearest large shopping center. The bus ride was illegal because the reduced rates were intended for travelling to and from school only. After a leisurely hour in the mall, they generally enjoyed a coke or something tasty with their bag lunch, and then at the last minute they would all crowd into a bus for a ride back to the school. The more daring ones endeavored to save time by using the visitors' and teachers' entrance, despite warnings. Entrances for students are designated in the interests of order and peace. Peer groupings are rather rigid and it is always discreet for the younger ones to use

their own entrance. Using the teachers' entrance takes more courage, but Randy dared it along with the rest of the carefree, elbowing crowd. Knowing that the problem was getting serious, the counsellor did speak to Randy and made an unofficial check on his tardiness. The secretaries do favor some children when they know the circumstances; Randy's report came back "late only three times this year, according to my count". His record of promptness did improve after this and the matter was dropped.

Mr. Paul Newman, counsellor, CNIB

On June 15, 1971, in preparation for the Grade IX Health course on self-exploration and evaluation, Mr. Paul Newman began exploratory talks on the telephone with Randy on the subject of vocational choice. No attempt will be made to channel him or direct him to any particular college or institution. At 14 it is not too early to start thinking about what and who you are going to be. Especially since Randy appears to have the ability, but is often not willing to put forth a good effort. Perhaps if he has a dream or goal he will not fall into the pattern that several persons have predicted: that he will do less and less work and eventually not be able to pass Grade XII.

One period in two years

In order to guard against overexposure or charges of favoritism, the counsellor did not take class time to speak with Randy except for one period in March, 1971 when a

substitute teacher was in charge of his class. On this occasion there was more to be gained by an interview than by the disorder allowed by the substitute teacher. The time passed quickly and we had just begun discussion of absent friends (Barry and Roger), likes, dislikes, wrestling and plans for next year when the bell rang. It was a good session, so much better than a hurried question in the hall.

Comments made by Randy's teachers at the end of
Grade VIII, 1970-71

Considerations

The reader will recall that Randy maintained an average of over 80 percent in Mathematics, Science, Social Studies, Language and Literature to earn his honor award. Attention is also directed to the fact that of the comments solicited from the teachers, four were favorable and four were unfavorable. The increased number of unfavorable reports over the previous year might well be regarded as an indication that Randy was being accepted, not as an oddity for whom excuses must be made, but as an ordinary student with a visual deficit. The comments were made, not in condemnation, but with a view to making his ensuing term more successful.

Mr. C., Physical Education

Classes started with fitness tests, conditioning exercises and progressed into football. Randy proved useful to the football team by being a wide-awake blocker. He did not attempt to catch the ball and the other

players never threw him a pass. The boys liked him and made special efforts to be friendly.

In volleyball he knew where the net was and the boys showed him where to stand. Many boys could not get the ball over the net, but Randy made many points with his good serve.

In wrestling he was able to win his bouts because of his speed and excellent sense of balance.

In track and field events, Randy tried everything. He was able to jump hurdles and do all the jumps. He wouldn't allow the boys to put a flag on the high jump bar and as a result almost injured himself because he was unable to see the bar.

He was prepared and trained for the sprints at the school track meet but neglected to show up at the starting line even though couriers were sent to remind him. It was the accepted practice with the other boys not to be too eager about school events and Randy was not about to be different.

Mr. L., Science

Nothing special was arranged for Randy, but he generally got the science concept that was being taught. Grade 8C was a big class and many of them tended to avoid work, but not Randy. He would appear to be mentally absent, but he was actually listening. He moved his pencil to doodle, but used no diversionary tactics to get out of work.

Mr. S., Mathematics

Randy worked independently, listened carefully during the explanations, knew what was going on and participated by putting up his hand and answering questions readily. He was not lazy. No special effort was required on the part of the teacher.

Mr. W., Business Education

This was an option and Randy participated well at first, but seemed to be led astray by his close friend B. He started talking instead of working and finally did nothing but fool

away his time. Another boy, S., did help after B. left, but Randy had little interest in bookkeeping which was being studied at that time. His final mark was low because he did only what he chose to do. He seemed to feel that because it was an option it was not important, but many students and parents have commented on the interest and value of the course.

Mr. G., Optional Social Studies

Randy's performance in this subject was disappointing because he never showed any interest. Many students took advantage of their freedom to pursue their favorite topic, but Randy did not have the motivation.

Mr. M., Language and Literature

Randy wrote paragraphs and essays with ease and fluency. His spelling was not always correct because he could not distinguish between letters. Although his handwriting resembled that of an aged man because of its curves and unsteadiness, it was legible. In Language and Literature his ideas were generally superior to the rest of the class. He readily understood literary figures of speech and tended to operate more at the abstract level than at the concrete. During periods of oral work, Randy joined in and contributed his share.

It was my experience that Randy would not always speak up or ask for help if he needed it. He seemed to sit there and hope he would not be noticed. Not being certain of whether he could not or would not work, I hesitated to press him all the time, and valuable time was lost.

Industrial Arts

Industrial Arts gave Randy an introduction to graphic arts, plastics, woodworking, sheet metal and industrial metal work. Where fine measurements were required, even sighted children had difficulty. Randy did not work much in the metals area. He was not allowed to use the lathes or any power tools because

of his low vision. He was able enough in graphic arts and woodwork with hand tools, but would not ask for help when he needed it. Randy's projects were seldom completed and production was generally low.

Mr. F., Social Studies

The original idea in Randy's Social Studies classes was to capitalize on his interest in world affairs. He was to be a resource person, an expert on China. Four rather long tapes by a university professor on the problem of China were to provide the information. Randy did listen to and summarize the tapes, but he found the project tedious. Perhaps, if there had been another person working with him, it might have made it more absorbing. He worked in isolation in a small seminar room in the library with his tape recorder and large-print typewriter. The reports that he made were adequate, but he missed the discussions and class activity where a lot of the learning took place. The tapes were a substitute for the novels on China that the others were reading.

Randy was able to discuss any problem or topic brought up in class and made a considerable contribution to the class. Randy did have difficulty with Chinese place names on one test. From this, the counsellor concluded that his knowledge of geography was lacking; however, a later check revealed that he knew the major places and was familiar with the general geography of Asia. Perhaps the help he received at home with black outlined maps remedied the problem. The feeling of this teacher was that he had benefited as much as anyone by his Grade VIII Social Studies course.

Mr. F., Curricular Associate

In Grade VIII Social Studies, Randy had a master teacher, with the title of Curricular Associate, who set out at first to give Randy an enriched program with taped materials. Such special treatment was a mistake. He says

that he should have treated him as an ordinary student who had no need to rely on others, except on rare occasions. The tapes took him away from a live, happy group that he invariably dominated, because he was more capable. Mr. F. said that the itinerant teacher and the counsellor were the only ones that reminded him that the boy was exceptional.

Special equipment?

In June, 1971, Randy's Social Studies teacher, his Science teacher, the area Science co-ordinator and the counsellor discussed Randy's need for special aids and came to the following conclusions:

No special equipment is necessary now in 1971, because he can cope with the work. He should have large print, but will not use it because he does not want to be different. Later on, special aids may be necessary when school work becomes more difficult. He may even have to accept a white cane, but at the present time he so much wants to be average that he would even accept "average" marks.

Books for Grade IX, 1971-72

As was the case in the school year 1970-71, Randy's books had to be ordered well in advance. The following list of materials required for Grade IX was compiled and sent to the itinerant teacher.

Mathematics: S.T.M. Book III, Braille copy ordered

Social Studies: experimental, perhaps large print; weekly edition of the New York Times

Language: some tapes available; text not necessary

Literature: necessary selections to be taped by the language arts option class; prefers Braille material

Science: main references:

1. Hogg and Croos, Basic Physical Science, Van Nostrand Co. (Canada) Ltd.
2. Thurber and Kilburn, Exploring Physical Science, Macmillan Co. of Canada.

also selected investigations from E.P.S. Junior High Physical Science Committee; Study Units:

1. Heat and Temperature
2. Combustion and Fuels

CHAPTER III

PLANS, COMMENTS, RECOMMENDATIONS

Grade IX Music?

After a discussion with Randy, his mother and the band teacher, Miss K., on April 21, 1971, the following plan was agreed upon. The noon hour arrangement should continue with Randy attending Jasper Place High School once a week for practice and training with a student aide.

Miss K. noted that it was unlikely that Randy would ever be able to take his place in a band and suggested that he discontinue the band option next year. Instead he could learn saxophone selections of his own choice. Practice periods could be provided at Stratford as though he were taking a Music option. This would make better use of the help given at the high school and lessen the burden of home practice which then could be limited to weekends. The parents should hear him at least once a week to check on his progress. All the foregoing plans would have to be approved by the principal of Stratford who is responsible for Randy's progress.

Randy's secret

Randy's good manners help to explain his ability to get along with others. He never offended persons by being too forward and took pains to know the temper of the group before he spoke. I often asked him if certain classroom disturbers had been a nuisance to him and he defended them,

saying that they were persons who really meant no harm and that they were actually helpful to him. It appears that he felt worthy himself and considered others the same way (Combs, 1962, p. 213).

Randy's ideas on vocations and education

When asked what his vocational plans were, Randy replied that he was considering law or politics. He also stated that he intended to work harder in Grade IX and high school. The Grade VIII year seemed to pass slowly for him. He did not dislike school, but certain aspects such as filling in blanks, rewriting sentences, and copying repetitive exercises seemed pointless to him. Randy was one year older than most of his classmates, many of whom needed the drills to reinforce the learning. He reported enjoying class discussions and found them stimulating.

Randy's prospects in law

Since Randy has expressed an interest in the study of law, he would probably enjoy reading the American Foundation for the Blind publication written by James F. C. Hyde, in 1954, entitled Law as a Profession for the Blind (Vocational Series No. 1). The 67-page book discusses the problems and compensations which may be expected in the practice of law. The blind lawyers who wrote the book have outlined the advantages and disadvantages according to the small town, suburban and large city practices. The preparation required for various senior legal positions such

as judge or professor are discussed. The book has been ordered for the Stratford library and should be useful to Randy and those Grade IX students making career studies in the Personal Development course.

To coddle or to challenge

A good teacher of sighted children has the problem of deciding how much to expect from his students. Often out of sympathy or ignorance teachers avoid making such a decision when a partially-sighted student arrives in class. Randy has his own ideas about what should be done and very much wants to be like the other students, many of whom are not too interested in school work. This brings the teacher to the dilemma of whether to insist on superior work or to allow indifferent performance because he is blind. In the long run, leaving Randy unchallenged would seem to be the unkindest course (Purkey, 1970, p. 50). It would appear preferable to engage him with worthwhile tasks so that he would be obliged to employ his problem-solving skills and learn to suffer a manageable amount of stress. Even now, "Randy acts deaf as well as blind when he encounters school work that he dislikes". According to many reports, Randy will often not make any effort to start assignments with the rest of the class. "He sits and does nothing until another student is put to work with him", stated one teacher. "The helper is then forced to recapitulate work which Randy could have done in the first place, had he been willing. Other students of comparable ability are often a third of the way through the

book before he begins." It could be argued that unless Randy acquires a sense of urgency to replace his inactivity, he may develop ineffective habits that will be difficult to correct.

The years ahead--ability, progress

Rated as very superior intellectually and having earned honor grades in competition with some 200 students on objective tests, it would seem that Randy's academic future looks bright. His statement of his intention to improve his working habits at the beginning of this chapter augurs well for Grade IX. In addition to his good intentions, his teachers know him well; there will be few changes in staff and the learning climate will probably continue to be favorable. Certainly, persons of less apparent ability have made it through university. Randy's progress will depend on his training to meet challenges and on the maintenance of a positive attitude toward learning. He has learned that frightening situations can be mastered. It is to be hoped that he can learn to face situations that he does not like and to overcome them.

Mother can take me

Randy can travel about his neighborhood and to and from school, but he has not as yet travelled to the city center by himself by bus. When the CNIB summer mobility course was suggested to him, Randy commented that it was not necessary for him because his mother drove him whenever he

was obliged to go about the city. Since his success at university or in an occupation will depend on his independence, self-reliance and mobility, these aspects of his development require considerable attention. Shopping downtown by himself and learning to use the local system of public transportation are worthy goals, but travel on a global scale is just as reasonable an objective as the account of Daniel Shanis illustrates. His story appeared in the Bulletin of the Americans and Canadians in Israel, September, 1970, p. 19.

Daniel Shanis, a graduate in clinical psychology from the University of Pennsylvania, has a sight problem similar to Randy's. Yet with five percent vision he was able to do a year of constructive work in Israel teaching Electricity Theory, Braille, English, Typing and Mathematics at the Institute for the Blind in Jerusalem. The article includes examples of Daniel's success, such as taking one person from basketry to computers and helping another person to succeed in school by using tape recorded information.

Although his vision is so poor that he must use Braille and tapes to study, he received a scholarship for study at several universities and has travelled about the United States, Mexico and Europe without assistance. One must concede that he is a mobile person. Of course Daniel is 25 years of age; Randy is 14.

The University of Alberta

Mr. Paul Newman, Supervisor of Social Services at the CNIB, Edmonton, felt that university ambitions for Randy were quite realistic and stated that he need not attend a university that was specially equipped for blind people. Five blind students are presently attending the University of Alberta. Two have enough vision to read print; the others use tapes to obtain information. There are no special facilities for blind students at the University of Alberta. The University of Calgary has a reading room and some special equipment including a TV Reader for blind students. According to the CNIB statistical summary given in Table 1, 21 blind students are attending university in Alberta.

The University of British Columbia

When one considers that there is no other Braille academic library in Canada, the Crane Memorial Library operated by Mr. Paul E. Thiele is ideal for the 36 blind students attending the University of British Columbia. Besides having some 12,000 volumes, 28 journals in Braille, tape and large print, the library can call other libraries across North America by Telex and have books arrive in a few days. All books and periodicals about blindness are available there too. Blind students have access to the University staff of some 450 members, and multilingual readers are available from various disciplines. The system of employing readers is efficient. Many readers are used for one project. A book can be completed in as little time

TABLE 1
 The Canadian National Institute for the Blind
 Statistical Summary of Blind Persons Studying
 Beyond the High School Level, 1970-71

CNIB Divisions	University	Other Institutions	Total	Outside Canada*
British Columbia	29	4	33	-
Alberta	21	1	22	1
Saskatchewan	13	-	13	-
Manitoba	15	-	15	-
Ontario	70	14	84	10
Quebec	38	10	48	1
Maritimes	9	-	9	-
Newfoundland	6	-	6	1
Canada	201	29	230	13

*Students in this column are included in Totals.

Number of Universities being attended: In Canada - 48;
 Outside Canada - 5.

Number of Other Institutions being attended: In Canada - 20;
 Outside Canada - 3.

(Distributed at the Counsellors' Conference, Edmonton,
 April 30, 1970)

as 36 hours. There is a close relationship among the staff and students at the Crane Library. The librarian practises "social librarianship", attempting to provide for every facet of student needs. Randy has already corresponded with Mr. Thiele and knows of the facilities which are described in the article printed in the UBC Doorway, Vol. 7, No. 2, May, 1969.

CHAPTER IV

ATTITUDES, ISSUES, AGENCIES

Chapter IV is intended to acquaint school personnel with some of the basic issues involved in educating blind children. Attitudes toward the blind and attitudes of the blind are important areas of investigation. In this regard, two authors are quoted to indicate the feelings about blindness that would be desirable in a school. In addition, some of the problems of the blind regarding schooling, placement and assistance are discussed.

Attitudes toward the blind and the integrated school

The rationale behind the integration of a blind student in a sighted school program is that there are benefits to be derived by the blind child from working and playing with sighted children in a sighted school community. The blind child is to live in a sighted world when he leaves school, it is contended. Therefore, he should begin from early childhood to adapt himself as one without sight for life in this world which does not exact extra visual adaptations from the vast majority of its citizens, nor even truth to tell, fully welcomes them from its blind citizens.

In an integrated school setting the blind child is expected to achieve academically within the limits of his individual ability on a level with other pupils in the school. He is to work, play, fight, and group with them on a basis of complete equality, with the exception, of course, of a bare minimum of actual physical limitations imposed by blindness. A favourable environment insofar as the integrated blind student is concerned is the acceptance of the blind student by the administrative and teaching staff as well as the sighted children. Such an environment may be considered a prerequisite for the success of the plan. Nonetheless, a completely

favorable environment from the beginning is a little too much to ask of any school.

Most administrators, most teachers, and most children have had no direct contact with blind children or blind adults, prior to the admission of a blind pupil to their school. The entire school population, therefore, is likely to possess the same range of attitudes toward the blind and the same collection of stereotypes common to society as a whole. These concepts held by teachers and administrators may lead them to define for the blind child in their school, a role different from that of full participation on a basis of equality. They may want to protect him from physical injury by barring him from playground activities and equipment. They may want to assign him a permanent guide and companion so that he can "get around with the others". They may want to send him to his home room teacher every time a non-listening activity takes place in their classroom, so that he won't be wasting his time. They may even want to go to the opposite extreme and keep him in the classroom for everything, without exception, but let him sit through certain activities in which they will not include him but from which they hope he might "get something anyway".

What attitude is it then, which must prevail in the school where blind children attend? Is there any one attitude which staff members can strive to obtain in which the special teacher can aid and encourage them to obtain which will allow the blind children, or blind child, participation on a basis of equality, yet neither neglect or unduly emphasize their or his special need? Perhaps such an attitude could be called, "matter-of-factness".

"Matter-of-factness" implies several things. It implies first of all that the right of the blind child to be in the school is not questioned. Their enrollment is not regarded as experimental, conditional, or the result of conscious altruism. If anything, administrators and teachers ask themselves, "Why should not blind children attend here?" rather than "Why should they?". Blind children, like seeing children, are pupils because they need an education. Teaching adapted to individual needs is a natural outgrowth of the acceptance of all children to be taught.

"Matter-of-factness" implies that a blind child's entrance into a class does not cause a

noticeable ripple in the stream of classroom activities. The teacher does not make a special announcement to the class, informing them of Johnny's blindness, and exhorting them "to help him all you can". It takes only one or two such exhortations to give the sighted children a proprietary feeling about Johnny, and make him a class project, rather than a classmate. Instead, questions about Johnny's inability to see, or his special materials, should be answered, often by Johnny himself, as they come up. Such questions are natural on the part of the children and can be answered in such a way that blindness becomes a mildly interesting, but hardly puzzling or pityable phenomenon. Johnny in his participation in classroom activities will soon show what he can and cannot do, without assistance, and only after assistance is clearly demonstrated to be necessary, should it be given. It is not the denial of difference that is needed, but the denial that difference prohibits equality (Fox, [1960], pp. 8-9).

Attitudes of the blind themselves

"Matter-of-factness" as explained in the foregoing statement is appreciated by blind persons. Bindt (1952) makes an appeal for the same treatment in the following passage:

I sincerely believe that the greatest handicap of the blind is not the loss of physical vision, but rather the loss of social and vocational opportunities to live a normal life. For many of us, the lack of sight is nothing more than a nuisance, though kind associates try to make it a burden that will hold us in a rocker beside the radio (p. 226).

Bindt further enlightens the reader about the legally-blind person who appears to see well enough:

It is often thought that blindness means the total lack of light sense. Actually the legal definition of blindness covers persons who can read briefly by holding the paper close to their eyes, but, with so impaired vision, cannot do work requiring sight. This explains

why a person carrying a white cane may comment upon a color or easily find a seat on the bus (p. 197).

Legal blindness--no meaning educationally

As indicated by Bindt previously, confusion does exist about legal blindness. The general statement of it does not give school personnel enough information. The legal definition of blindness in Canada is "vision in the better eye after correction (meaning with glasses) of not more than 20/200". This means the blind see at 20 feet what the normal person sees at 200 feet. In education this means very little. What the teacher needs, I believe, in the child's cumulative record is a short statement of his condition. There should be, in plain terms, a listing of what he can do, and the physical conditions under which he can work best.

You must write even if you are blind

The following is a summary of directions for teaching blind students to write. The system was developed by Mr. N. Warner of Jericho Hill School, Vancouver, and taped on November 4, 1970.

Reasons for teaching the blind student to write:

1. To sign their names legibly on cheques, documents and to identify themselves.
2. To write notes and personal letters.
3. To build self-confidence
 - (a) more in common with peers
 - (b) identify in a writing world

Paper: Practice writing on Braille paper on which rows of Brailled letter C's have been typed with a Braille typewriter on every second line. The child can feel these rows of dots and can find the starting place on the second line down. Hold paper at proper slant.

Holding the pencil: Fingers on the right or left hand are numbered; thumb is 1, index is 2, middle is 3 and so on. The pencil must be held between the tips of the second and third fingers, supported by the thumb close to the tip of the pencil. Make certain that the pencil is not being gripped too tightly.

Hand drills:

1. Hold pencil in writing position on paper; move thumb away and still hold on to pencil. Move second and third fingers away from thumb.
2. Extend fingers; squeeze second and third together and wiggle these two fingers, keeping others extended.
3. Fingers extended, spread apart, squeeze second and third together, push them down, up, out, in, etc.
4. Extend fingers hard, clench fist hard, out, in, out, in.
5. Repeat all previous drills.

Orientation drills:

1. Drop pencil on table. Pick it up.
2. Place pencil and paper somewhere in front of

student. Student folds arms. On command he finds pencil, the starting place, and assumes the proper writing position.

First letters:

1. Draw an oblique line starting from the second line to the top of the first. Repeat.
2. Draw a line as in 1, half-way up.
3. Try letter i, half-way up and down the same way.
4. Try letter t.

Sequence for learning letters: i, t, u, w, r, n, m, x, v, e, l, h, b, j, y, z, c, a, d, g, o, s, k, p, f, q.

Pointers: Watch that students do not dip the last horizontal bar on the letter w. Letters x, s, k are particularly difficult. Mr. Warner does not allow them to write their names until they have reached the letter b at least.

Teachers will find the Elementary Curriculum Guide for Handwriting, Province of Alberta, Department of Education, very useful for assistance with problems such as left-handedness, directions of strokes and motivation.

Edmonton Public School Board, Special Education Branch

Low-vision students in the city of Edmonton are fortunate in having a well-organized system functioning, as the following directive indicates.

Educational Services to Low Vision Students

"Low Vision" pupils fall into two categories:

- (a) Those who require special placement in a Low Vision Class. These students are those who cannot cope with a regular program, blackboard work, regular size print, etc., because of the degree of visual impairment which they suffer. Two classes offer service to these students at the elementary and low junior high school levels.

It is the objective of these classes to help the pupils develop skills and techniques which will enable them to return to and cope with regular class settings at the earliest possible time.

- (b) Those who, with special help, large type texts, tapes or other equipment and/or with special techniques such as Braille, can be served in the regular class or who, having been in a Low Vision Class, and having developed suitable techniques and skills, have been returned to regular classes.

For these pupils we offer the service of itinerant low vision teachers. Some 35 students now receive their help--eleven at the Elementary, ten at the Junior High and fourteen at the Senior High level.

Itinerant Teachers offer the following services:

1. Interpret the problem of the Low Vision pupil to the classroom teacher.
2. Assist in procuring special materials such as tapes, large print books, Braille texts, etc.
3. Make special provision where necessary to assist students in taking examinations.
4. Act as a liaison person with the CNIB.
5. Advise the school with respect to problems faced by school or student with respect to the child's disability.

The itinerant teacher should not be expected to take over the instruction of the low vision

child but rather to work with classroom teachers to facilitate instruction.

(Director of Special Education, 6/11/69)

Excerpts from The Canadian National Institute for the Blind
"Report of Services to Blind Albertans", for the year ending
December 31, 1970

Help is available for all blind Albertans through the CNIB. The following excerpts are cited because they may be of special interest to persons in schools.

Student Total:

In 1970 there were 66 blind students in regular classrooms throughout Alberta, 31 in low vision classes, and 28 others studying beyond the high school level in universities, colleges and technical schools.

Teen Course:

In August the Group Adjustment Training Course for teens was held in the Calgary Service Centre. Thirteen students through Alberta participated. The primary objective of this course was to assist young people who were entering sighted schools after completing their training at the schools for the blind, or having recently lost their sight, to cope with their new situation. This course was a comprehensive instructional and recreational program consisting of group discussions, individual instruction and recreation. This latter aspect of the program was integrated with sighted teens.

Library:

Braille and talking books re-open the world of literature for the blind. They are distributed to blind readers without charge and are carried free in the mails.

Cases served 534

Registration:

In order for a person to become eligible for CNIB services a report of eye condition is obtained from an eye physician certifying that

vision is within the legal meaning of blindness. Basic information and a running case record are maintained on each blind person to ensure that the most effective possible service is rendered.

Number registered at January 1st, 1970 . . .	1,792
New cases added during the year	175
Cases closed during the year	166
Number registered at December 31st, 1970	1,801

Children and Youth:

Special counselling services are provided to blind children and their parents to assist in a satisfactory adjustment to blindness.

Cases served	179
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Alberta Society for the Visually Impaired, Box 5593,
Edmonton, Alberta

Like other modern parent groups, the Alberta Society for the Visually Impaired realizes that action from the government can be effected through organization.

The Society is dedicated to developing "to the highest degree, the physical, mental social, and spiritual capabilities of the visually impaired". The following is an excerpt from one of the Society's information sheets:

1. Provincial government policy provides Alberta's blind children with a good elementary education.

BUT

- (a) From the age of six onward these blind children leave their homes and go to British Columbia or Ontario to get their schooling.
- (b) For nearly ten months each year they live in a residential school separated from the love and care of their parents.
- (c) They are unnecessarily segregated from many of the normal experiences of home and community life.

2. Alberta can rightfully claim credit for many positive developments in public education.

BUT In the humane aspects of its educational provisions for blind children it lags far behind its capacity. There is no valid reason why these children cannot be educated in Alberta.

We want the Department of Education to provide the necessary financial support for day classes (in Edmonton and Calgary as a beginning) for the education of blind children in the elementary grades commencing Sept. 1, 1971. Such classes would provide for the educational needs of these children, including the teaching of braille, and would be organized to encourage the integration of their activities with those of normal sighted children wherever feasible and desirable.

HELP US BRING BACK OUT CHILDREN TO WHERE THEY BELONG - ALBERTA. SUPPORT OUR AIMS IN A LETTER TO YOUR M.L.A.

JOIN THE ALBERTA SOCIETY FOR THE VISUALLY IMPAIRED. Annual membership fee is \$1.00.

Excerpt from July 16, 1971 Newsletter of the Society for the Visually Impaired

The following excerpt is an example of the results gained through group action:

LOW VISION CLINIC: All parents with children who have visual problems will be interested in the favourable results reported already of this newly established clinic. Dr. G. T. Leitch, Ophthalmologist, is in charge. If you wish your child to have a visual acuity test you can contact Helen at 432-6417 or Mrs. Thirwell, our C.N.I.B. nurse. It is a consulting service and the consent of your child's ophthalmologist is required. Location is in the Clinical Sciences Building, University Hospital, Edmonton. A Low Vision Clinic is to be located in Calgary as well. Your C.N.I.B. will probably have details in September.

Alberta Jaycettes present a brief

Another allied group interested in special education are the wives of the members of the Junior Chamber of Commerce, who call themselves the Jaycettes.

In 1970, the Jaycettes of Alberta presented a brief entitled "The Education of the Blind" to the Government of the Province of Alberta. Their recommendations for visually handicapped children, briefly stated, include: integration into regular schools with provision of itinerant services and establishment of compulsory registration in a central registry under the Department of Social Development.

Excerpts of the brief that are pertinent to this study are given below.

NUMBER OF BLIND CHILDREN REGISTERED IN THE PRAIRIE PROVINCES (p. 2)

	<u>Totally Blind</u>	<u>Partially Blind</u>
Alberta	144	183
Saskatchewan	113	?
Manitoba	93	?
	—	—
Total	350	183

These statistics were obtained from the C.N.I.B. in Alberta and Ontario.

NUMBER OF BLIND CHILDREN BEING TRAINED

Alberta	21 being trained at Jericho Hill, Vancouver
	5 being trained at Brantford, Ontario
Saskatchewan	18 being trained at Brantford, Ontario
Manitoba	17 being trained at Brantford, Ontario

COSTS INVOLVED TO THE PROVINCE OF ALBERTA

The government pays for room board, tuition and transportation at an approximate amount yearly of \$86,000.00.

UNTRAINED TOTALS (p. 4)

At present there are approximately 183 children within the Province of Alberta with sight defects who are not receiving specialized training. The majority of these children live in rural areas. These children could benefit by special education which at present is not offered to them because they are not legally blind.

When these 183 partially sighted children are added to the number of children who are already in Schools for the Blind or in low vision classes, the number of children in Alberta who could benefit by a special school has practically doubled.

CURRENT LOW VISION TRAINING

In the Edmonton area, there are 52 visually impaired children registered in the Edmonton Public School system in September 1969. Nineteen of these are in the two Low Vision classes at Queen Mary Park School. The others are in regular classes throughout the system. All but three are Edmonton residents.

The Junior Low Vision Room began with nine children in Grades 1, 2 and 3. Three of these were beginners, one had been given homebound instruction for six months. They have been reading material prepared by their teacher who prints words two inches in height with a flo-master pen. Four children in the room are receiving braille instruction three mornings a week.

The Senior Low Vision Class consists of ten students in Grades 4, 5, 6 and 7. Two are new to the room, one from a city public school, another from Buck Lake, Alberta. Both require large print books, the latter receives braille instruction. Altogether four children in the room are learning braille. Three use braille arithmetic exclusively. All are learning to type. The older ones are being trained to work with the tape recorder especially in Social Studies and Literature.

A new approach is being tried with three students in Queen Mary Park School who will move into a regular Junior High School next year. In preparation for the transfer, they are taken to the Junior High School at intervals to receive counselling and to be accustomed to moving about the school.

The classes were started this year at Queen Mary Park with 33 students on the itinerant list and two itinerant teachers. Four children have been added to the list.

ITINERANT PROGRAM, 1969 (p. 5)

Last June, six students were considered sufficiently mature and competent to leave the Low Vision class and to be placed in regular classes in their neighborhood schools. Most are making a satisfactory adjustment. In September the itinerant teachers contacted principals, counsellors and home room teachers to inform them of the general nature of the children's problems. Recommendations were made for the use of tapes, typewriters, readers for exams and time extension for written work. The buddy system was started and, in some cases, adult volunteer workers were introduced.

Some students on the itinerant list are helped regularly in scheduled periods by the itinerant teacher. Others are seen only occasionally. Materials and devices are provided where needed. Teachers have mentioned that they feel reassured because they know support is available and they believe the students have more confidence because they know an itinerant teacher is available when major problems arise. Thus the itinerant teacher services seems to have an emotional value as well as its practical aspects.

The support and assistance of the C.N.I.B. has been noteworthy. They have taped books, printed others in braille, loaned typewriters, tape recorders and talking books as well as providing students with invaluable instruction in braille reading and writing. A special mention must be made of the co-operation and understanding of teachers and administrators in each school concerned with our visually impaired children.

Incidence of the blind and the visually handicapped

For purposes of comparison, the incidence of defective vision in the United States is discussed by Reed (1965) as follows:

Exact figures of the incidence of such children are difficult to obtain. Many of the brighter students who fall within this range go through the regular courses in public schools and are never reported to the authorities, and in some rural areas statistics are not reliable.

The incidence of blind school children in the United States is about one for every 3000 to 4000, while the incidence of visually handicapped is one in 1000 to 1500.

It has been estimated that the current (1965) epidemic of rubella in the North American continent will damage about 20,000 babies, and this will probably result in a considerably increased incidence of defective vision in school children in the 1970s (p. 886).

Visually handicapped children in Winnipeg

Winnipeg has approximately the same number of blind school children as Edmonton, according to the information published by Reed (1965) below and in Table 2.

Special classes for visually handicapped children have been available in Winnipeg for the past seven years (Table 2). There are three classes at present, and a fourth is about to be started. Metropolitan Winnipeg has a school population of about 100,000, and at present 63 children are registered as visually handicapped. This is an incidence of about 0.63 per 1000.

In many cases the children listed in Table 2 have two or more ocular defects. For example, most children have refractive errors in addition to the albinism or nystagmus or aniridia, but in the table only the more serious diagnosis is listed.

It will be seen that of the 63 children, only 40 are attending the visually handicapped classes. Four are attending ungraded classes because of additional handicaps, and 19, despite their visual defects, are still in regular classes. Some of the children in regular classes are in the first three grades, and it is probable that they will fall behind and require the assistance of the special classes later in their school careers (p. 886).

TABLE 2

Visually Handicapped Children in Winnipeg (Reed, 1965)

Diagnosis	Attending Visually Handicapped Classes	Attending Ungraded Classes	Attending Regular Classes
Refractive errors	6	1	8
Congenital cataracts	5		
Albinism	2		1
Ocular nystagmus	13	2	7
Macular dystrophy	3		2
Aniridnia	2		1
Dislocated lenses	3		
Retrobulbar fibroplasia	4		
Corneal scarring	2	1	
Totals	40	4	19

Department of Education, Special Education

Assistance from the Government of Alberta is readily available for blind persons. The following information has been taken from the School Grants Regulations (1970) and the statements of a government representative at the ASVI conference on the education of the visually impaired held at the Glenrose Hospital on May 15, 1971.

The government of the Province of Alberta makes generous allowances of money for exceptional children in its School Grants Regulations (Alberta, 1970). Pupils who are obliged to attend Jericho Hill or Brantford Schools for the Blind have their board, tuition and transportation paid. This includes airfares at Christmas and Easter so that they need not be separated from their families during the festive seasons. Likewise local school boards who must send exceptional students out of their district for tuition can make claims to the department. However, there is no special allowance given to boards when a partially-sighted child is integrated into the regular school.

Parents should know that grants are available for special teachers, for facilities such as shops, new buildings, and special vocational courses for exceptional children.

Parents of children who are experiencing visual difficulty in school should have their child referred to the local school authority or the CNIB. The Special Education Services are then alerted and endeavor to make the best possible placement. Cases are reviewed frequently and ophthalmologists' reports are requested frequently.

Decisions to send children away from home are made only after a total study of the child has been made. School authorities, specialists, the CNIB personnel and all persons concerned are consulted before applications are submitted. The latest development from the schools for the

blind is that only Braille-using students are to be accepted in the future.

Residential schools are better for some

The Alberta Department of Education has been criticized for separating blind children from their families for educational purposes.

Lowenfeld (1959) suggests four groups who really are better off in residential schools. In the first group are "the blind children for whom no local services are available". Alberta has many areas where no services exist. As has been mentioned in the brief on the Education of the Blind, p. 81, a preponderance of Alberta blind come from outlying areas. Next are "the blind children who grow up in families, which for a variety of reasons, are not desirable places for them". Also "there are those blind children who, either for environmental reasons or reasons within themselves, are not in a state which would make them good prospects for public school placement". Finally, there are "those children whose parents believe that the residential school is a better place for them than the public school" (p. 29).

British oppose wholesale integration of blind students

While the trend in North America has been to educate the blind with the seeing, the English system keeps them separate. From the report of the Joint Committee of the College of Teachers of the Blind and the National Institute for the Blind of England comes this statement:

We think that the advantages of the system of educating blind children in ordinary schools are outweighed by the disadvantages. We are of the opinion that the education of blind children, particularly young blind children, is of too specialized a character to permit of its being treated as an appendage of the scheme of education in the ordinary elementary school. In forming this conclusion, however, it should be understood that the committee has in mind the blind child of average attainments. The conclusion must not be construed as definitely closing against the gifted child all other avenues than the present type of school for the blind. Different considerations arise with children suitable for secondary and university education (Carson, 1966, p. 9).

CHAPTER V

AIDS, METHODS, PROCEDURES

The material in this chapter is, for the most part, freely adapted with permission from a booklet, "The Blind Child in the Sighted School", written by Dr. E. E. Fox, former director of Special Education for the Government of Saskatchewan.

The low vision child in a sighted school requires certain special aids and instruction. No comprehensive discussion of aids, methods and procedures seems readily available. Therefore, this paper is offered in order to share the experience of teachers and students who have functioned previously in the blind child-sighted school situation.

Equipment and instructional aids

1. (a) Braille-writer: The Braille-writer is a machine which functions as the blind student's "pen" for note taking. The machine makes less noise than a typewriter and it has been found that the other students soon cease to hear it above normal classroom disturbance.
- (b) Braille slate: In comparison to the Braille-writer the Braille slate is inferior. However, it is more portable and is useful for emergencies.
2. Typewriter: A blind child can develop accuracy and deftness in the use of a typewriter. Its use should be

encouraged for all writing assignments. For some partially-sighted students, a primary type machine will enable them to proof read their work. I.B.M. has a regular machine with a replaceable head that has a large type alphabet which would be readable. Dictaphones are excellent for use in conjunction with a typewriter, when students are doing speed practice. A foot pedal that stops, advances or retards, keeps the hands at the keyboard and speeds the work. Tape recorder can be used in this connection also.

3. Taylor slate: The Taylor slate or arithmetic slate is essential for mathematics and science. Usually the child will have received instruction in the use of the device prior to integration in a sighted school. If such is the case, the teacher in the sighted classroom may learn of its use from the blind child.
4. Graphic Aids Board: The Graphic Aids Board is a framed rubber board with raised lines, horizontally and vertically, which section the surface much in the fashion of graph paper. Pegs or pins are then positioned on the board to indicate a geometric figure such as a triangle, rectangle, etc. An elastic band may then be positioned around the perimeter of the pegs, enabling the blind child to sense the figure by touch. A thin metal strip also accompanies the board and may be used to demonstrate various sized geometric figures by being positioned about the pegs. The board may not lend itself to

extensive use, but should not be passed over, as it provides an excellent introduction to new material.

5. Tape recorder: The tape recorder is invaluable for the preparation of notes. It saves time and the tapes yield themselves readily to correction by a teacher unacquainted with Braille. The teacher, when correcting a blind child's written assignment, may do so audibly on a tape, which the blind student in turn replays and is then able to re-submit a corrected assignment. Tests may also be recorded by the teacher, carefully numbered as per the sighted students' copies, thus allowing the blind child to play and replay the test at his own convenience. Small portable cassette recorders are especially convenient because the 2" x 3" cassettes are truly pocket size. By judicious editing with a stop and start switch, essential portions of lessons and explanations can be garnered for replaying or note making later on.
6. Braille paper: This paper lends itself more readily than does ordinary stock to becoming a permanent Braille record. Paper from certain magazines such as Time, Life and National Geographic also make good Braille paper.
7. (a) Braille dictionary: The most commonly used Braille dictionary carries the misnomer "Vest Pocket". It consumes seven large volumes. It is best kept on a table at the back of the room or where the blind student will have easy access with a minimum of distracting maneuvering.

(b) Large print dictionary:

Most large print dictionaries are very expensive. One which is easy to read and economically priced at under \$10.00 is: Webster's New American Dictionary, published by World Reader's Service, Inc., 248 Sisson Avenue, Hartford, Conn. 06105 (Scott, [1970], p. 24).

8. Ring binders: Ring binders may prove valuable to contain Braille notes in particular, but other assignments as well. For each binder it is desirable to have the student Braille the subject name and contents on a piece of Braille paper, which can then be glued to the cover, for easy identification. The tape recorder reels or boxes may be marked in the same manner.
9. Thermoform Vacuum Duplicating Machine: This duplicating machine enables the teacher to reproduce drawings of a tactful nature quickly and cheaply either singly or in class lots. With these duplicates, low vision students can learn that a drawing is either a reproduction of three dimensional objects to two dimensions, or a symbolic representation of an idea. Thermoform, as the name implies, operates on a principle of heat plus suction on plastic sheets to produce duplicates of Braille material, raised-line drawings, texture pictures and relief shapes.
10. Closed circuit television machines: Television viewers need not be expensive. Only parts of the Sony Video Taper 2200 or 2600 need be used. Queen Mary Park School, Edmonton, has a Magna Viewer. Randsight

(Reader's Digest, January, 1971) is another machine that enables persons with a visual acuity of near zero to read ordinary books.

11. Micro film viewers: Micro film viewers could perhaps be adapted for some low-vision persons with a little experimentation.
12. Page turners: The page turners listed here are all electrically operated, without threads and clips, and are considered the most practical on the market. The disadvantage in machines using threads and clips to turn the pages is the time needed to re-thread the machine (usually every 50 pages), making their use impractical in most hospital situations. In an experiment conducted at the Alderman Library, University of Virginia in 1958 (Robert P. Bristol, Page Turners; a Report of Their Usefulness for the Closed Circuit TV Project), the Lakeland and Turn-a-Page gave the most consistently satisfactory performance.

- (a) Lakeland Automatic Page Turner, Lakeland Tool Works, 3024 Clinton Avenue South, Minneapolis, Minnesota 55408:

This device is operated by a feather-light, momentary touch of the electric switch, requiring less than one-eighth inch of movement by any part of the body--even just the flexing of a muscle. Once activated the machine will carry through for one operation. An arm with silicone plastic on the end presses on the page and turns it by pulling it to the left (the page turner turns forward only). A wire operates to keep the left page held flat. A sufficient supply of the silicone pick-up plastic comes with the machine to last for several years. The mounting panel is 15" x 23 1/4"; the device accepts large and small books and magazines. Base of the unit is 9" x 23 1/2"; weight is 11 pounds. The silicone plastic has been found to need reshaping after each prolonged use of the device; it may be replaced when it becomes too soiled. The turner can be placed on any overbed table, work table, or wheel chair table.

(b) Turn-a-Page, Hagman Enterprises, 2606 East Glenoaks Blvd., Glendale, California 91206:

Since the Alderman Library experiment was conducted many refinements and modifications have been made on this device, but the basic operation remains the same. The present model, Series E, is electrically operated by two switches placed next to the reader where he can exercise movement; only a light touch is needed to operate the machine. One switch turns pages forward, the other backward. Once activated the switch does not need to be held down to carry through the action. The two arms holding the publication in place automatically adjust the machine to pick up at the correct point for any page size. An arm, rotating in a complete circle, drops onto a page, turns it by pushing it. Pages are kept flat by a wire circle operating in conjunction with the rotating arm. It occasionally turns two pages at a time, but this can be corrected by setting the arm in motion in the opposite direction and turning the page back. Size of the machine is 24" x 20". It operates on standard 110-115 volt, 5-60 cycle AC outlet. It will accommodate a range of sizes from small books to large magazines. The device meets the needs of those who are immobile as well as those of the most seriously involved spastic. A timing device included in the functions of the Turn-a-Page allows time for the spasm to subside before another page would require turning. Experience has shown spastics become more relaxed since they know they cannot harm the switches, and that the spasm does not affect the page turning. The company notes that this device is the only one of its kind accepted and approved by the U. S. Government for purchase. For prone patients (in an iron lung) a special mirror attachment kit is available. Here the switches are placed by the patient's face and he can, by puffing right or left cheek, turn the pages. Mirrors are front-surface, astronomical type, producing a clear image. The price schedule is as follows:

1 to 10, each	\$248.56
11 to 25, each	208.21
26 or more, each	181.31
Mirror kit, each	105.23

(c) The Cambridge Page Turner, Cambridge Instrument Company, 420 Lexington Avenue, New York, N. Y. 10017:

This page turner enables the partially or completely paralyzed patient to read without assistance. Designed for patients with this type of disability, the device is equipped with a rubber bulb that responds to pressure by those with partial use of their limbs. A sucking or blowing device enables the completely paralyzed to turn pages. The device comes with a reading lamp and can hold a 250-page paperback or limp cover book. Thicker books can be read in sections, as can hard cover books with their covers removed.

13. Bedspecs, Swift Instruments, Inc., 952 Dorchester Avenue, Boston, Mass. 02124:

These prismatic glasses are usually available through local optical companies. Prism glasses provide right-angle reading; a patient lying flat on his back or resting in a reclining position can read a book or magazine propped on the chest or abdomen. They are also useful for viewing television. Optically correct, the glasses require no professional fitting and may be worn with or without regular glasses. They are, however, difficult to use over bifocals. Some patients have been able to wear their bifocals upside down with prism glasses, but this is not always successful. Even with this limitation prism glasses are a useful and popular piece of equipment since they provide a clear, slightly magnified image, and may be useful, as well, in mitigating some undesirable effects of reading or viewing while lying flat. Swift Instruments, Inc. also manufactures a wide variety of magnifiers and "readers" (hand-held magnifiers) at various prices.

14. Reading stands: Reading stands satisfactory for most purposes can usually be purchased through local book and stationery stores. The specialized reading stands, designed especially for bed patients and the handicapped, cannot be listed with any degree of certainty, as the market for them is apparently small and manufacturers frequently discontinue production. Several that are currently available are:

(a) Booktilt, Designcraft, 12162 Grand River Ave., Detroit, Michigan 48204:

An adjustable stand with specially engineered finger controls for holding pages open. Adjusting screws at hinges provide the means for extra tension support to hold heavy books at low inclines. Can be used on table, desk or in bed.

(b) Easy-Read All-Purpose Stand, Replogle Globes, Inc., 1901 North Narragansett Ave., Chicago, Ill. 60639:

A lightweight stand for reading, eating or writing in bed or in an easy chair, was formerly called the Ponten Reading Stand. The top tilts and stays at any angle without mechanical adjustment. It raises to a height of 17 inches, and holds magazines or the heaviest books. Top is 11 1/2" x 20". Folds flat for storage; may be used as a bed tray.

(c) Gore Reading Stand, American Printing House for the Blind, 1839 Frankfort Ave., Louisville, Kentucky 40306:

A table model, four-jointed with one arm permissible for extension from 6 1/2 to 12 inches. It is provided with a C-clamp for attaching to a table or desk. A music-stand type of book rack. The floor pedestal model, Shafer Reading Stand, with a 44 inch vertical shaft and jointed arm that can be extended to 27 inches, is adjustable for both sitting and standing positions.

(d) National Aid to the Visually Handicapped, Flatiron Building, 175 Fifth Avenue, New York, N. Y. 10010, sells a wire book stand designed to hold spiral bound books. A center prong slips through the spiral (Reading, pp. 8-11).

15. Special aids: One or more of the following aids may be used by the partially sighted student. They are not all helpful to all students.

1. A monocular (half a binocular) may enable him to see the blackboard.
2. Low vision reading spectacles may enable a student to read text books at very close range. Reading speed is usually below average and the effort involved usually permits the student to read for relatively short periods.
3. Taped copies of text books are made available on loan to the student by CNIB if he needs them.
4. Hand-held magnifying lens may be helpful for map

and dictionary work, but are not satisfactory for general reading.

5. Black nylon tip pens give the best contrast for those able to read hand writing.
6. Raised desks or easels which bring the book closer to the student's eyes will lessen muscular fatigue. Most students feel they are too conspicuous for use at school, but will use them at home.
7. Some students are able to read work on the blackboard at a distance of only four to ten feet. For such students a movable seat is a necessity (Scott, [1970], p. 17).
16. Low vision aids: Some partially sighted children can make good use of special optical devices which permit them to read at close range print which they could not otherwise see.

Those students who cannot see the writing on a blackboard may find they can do so with a monocular telescopic unit.

Adaptation to a low vision aid requires time, practice and a strong motivation to read on the part of the student. If it is felt a student might benefit from a low vision aid, referral to the Low Vision Clinic (for location check with the CNIB) can be made by the student's ophthalmologist (Scott, [1970], p. 22).

17. Magnifiers (from Ontario Department of Education, Special Education Catalogue):
 - (a) EZY Rede Bar: \$10.00 approx., Williams Optical Co., 5 Richmond Street East, Toronto.
 - (b) Lucite Magna Bar: \$1.50 approx., by Bausch and Lomb, T. Eaton Co. or Towers Department Stores, Optical Department.

Miscellaneous aids

1. A Braille geometry set contains the usual complement of devices with ingenious adaptations. The instruments are so similar to the ordinary instruments that their use will

be readily discernible to the teacher, who will then instruct in their use as per usual.

2. Rubber under-mat: This small rubber mat, when placed under the Braille paper, assists the compass or freehand spur wheel to raise perforations to create easily identifiable geometric figures or drawings.
3. Braille ruler: The Braille ruler poses no problem as to use, but will likely limit accuracy beyond one-eighth of an inch.
4. Stapler: The stapling together of related materials or notes will not only facilitate note-finding, but when used for homework, eliminates transporting bulky notebooks.
5. Braille and embossed maps and globes: These devices are available and the teacher should encourage their use as often as the other children are called upon to refer to maps.
6. Cranmer Abacus: The Cranmer Abacus mentioned previously is a hand-sized abacus with modifications made for visually impaired persons. It serves as a slide rule for computations.
7. Opaque projector: Some partially sighted students can be aided with diagrams, illustrations and mathematics work in black and white by the use of opaque projectors.
8. Easels and bookholders: Illustrations of easels and bookholders are given at the back of the Scott pamphlet. These aids are necessary for comfort in reading and typing.

9. Large print books: Large print books are supplied by the CNIB. The Ontario Department of Education has a list of texts by grade which the teacher simply ticks off and mails in when required. The American Foundation for the Blind and the United States Office of Education and the American Library of Congress have lists available. Materials of this nature are the responsibility of local school boards in Alberta. The Special Education Services, Provincial Department of Education, could provide some information regarding sources of large print material.
10. Enlarged editions:
Books or printed material may be enlarged by a microfilming process on fairly short notice. For information contact CNIB or Xerox of Canada, Limited, Service Center, 129 Adelaide Street West, Toronto, Ontario (Scott, [1970], p. 25).
11. Listening centers: Listening centers are record players or taperecorders with jacks for as many as 12 earphones for use in open area schools or classrooms.
12. Biological models: Biological models provide opportunities for learning concepts in botany and zoology.
13. Physiological models: "Physiological models both male and female which can be examined and assembled by students are academically appropriate" (Fulker, 1968, p. 54).
14. Magnetic boards: Magnetic boards make safe bulletin boards for Braille notices, paper art work and magnetic art work.

15. Plastic models, toys and kits: These items can be purchased in any store and provide the blind child with his own "pictures" and "illustrations".
16. Molecular models: The University of Alberta Bookstore has several inexpensive sets of these models that all children could examine with profit.
17. Styrofoam figures and shapes: These models would be useful in mathematics and art work and are available at the University of Alberta Bookstore.
18. Games and special equipment such as Brailled watches are available at reasonable prices from the CNIB.

Teaching specific subjects

Suggestions to teachers of visually handicapped students

- "Speak while you write"--whenever you write on the blackboard.
- Describe verbally any visual demonstrations you make.
- Consider the student capable--unless he proves himself incapable.
- Treat him/her as "exceptional" or "different" as seldom as possible.
- Encourage student to seek assistance in finding material for research projects, and to have material not readily available in Braille to be read to him.

- BE DEMANDING! Expect high standards. If a handicapped person wishes to succeed in a competitive society he must be "BETTER THAN AVERAGE".
- Advise student what chapter and/or pages will be studied in class a day in advance so he can bring the correct volume of that particular text with him.
- When making diagrams or maps in relief keep the drawing as simple as possible. When a blind person looks at a diagram or map he moves from the parts to the whole rather than seeing the whole and moving on to discover the parts.
- All assignments except Mathematics should be turned in to the teacher in typewritten form. Mathematics will be done in Braille and will have to be checked from the tape by the teacher.

Literature

Literature may be the most easily handled subject of all. The student will have the basic text in Braille. The teacher may require that each selection under consideration be read onto the tape recorder.

The teacher will be able to clear up misinterpretations easily and the student will be able to "re-read" the selection as often as necessary.

Literary selections not in the Brailled text, such

as those mimeographed by the teacher, could be read onto the tape for the blind child who could maintain the tape or produce a Brailled copy for future study or reference. All variations need not be mentioned. It is sufficient to say that between the teacher and student, certain systems will suggest themselves. Family and friends should be encouraged to read aloud from other sources.

Composition

The child should be encouraged to submit typewritten compositions which are as carefully marked for the blind student as for any student (see suggestions under heading "Tape recorder").

Composition can be handled much in the same manner as literature. However, certain essays will require wide research from conventional sources. It is here that willing family and friends can aid with homework.

Social Studies

Social Studies will entail vast amounts of reading. The tape recorder must be used frequently for reviewing "notes" and to provide first acquaintance. An effort should be made to maintain a separate tape or set of tapes upon which each day's readings may accumulate. Helpful students and other volunteer readers should be available to ease the teacher's load.

Graphs and tables present a problem that may be met by using a spur wheel for bars and lines and Braille writing for labeling. Since the process may be laborious, it may be

discontinued after the student has mastered the concept and is able to understand a verbal description.

Maps and map work for the blind child will of necessity be more limited. However, good use should be made of the Braille maps and embossed maps whenever an opportunity arises.

French

Many of the methods of use in Literature, Composition and Social Studies will be helpful in handling French. Language laboratories afford all students equal opportunities to perfect their understanding and speaking skill.

When the blind child begins a French class, suitable modifications to the typewriter keyboard should be made. All major typewriter manufacturers have available French keyboard conversion kits.

Accents required for French may be handled satisfactorily in Braille.

Where practical, the teacher should encourage the completion of assignments on the French keyboard typewriter. However, if it is deemed more appropriate for some work to be Brailled by the student and read aloud for correction, then no objection should be made.

Mathematics

A. Arithmetic:

The teacher should determine if the blind child has the requisite kind of experience with numbers upon which to base any further mathematical abstractions. This type of

experience cannot be taken for granted, but rather must be very carefully cultivated when necessary.

The number concept in normal children develops as a result of his play activities, and in quite a natural way. On the street, for example, he may learn to count pickets, trees, or even cracks in the sidewalk.

For the blind or partially-sighted child, matters are quite different. Because of his impaired vision and the over-protection others inflict upon him, he may never have become familiar with numbers to the same extent as his sighted brother.

Further, because the blind child is carefully steered away from fire hydrants, mail boxes, and parking meters, he has no conception of them. Taking such concepts for granted as we do in the case of normal children, would be unjustified in the case of the blind or partially-seeing children. Any mathematical presentation based on such allegedly familiar objects is foredoomed to failure when the child has no such concept.

Even when the child has had adequate contact with his environment and has thereby developed the number concept as well as the concepts of size, shape and proportion, there still remains the problem of translating these concepts into written form. In the case of the blind child the execution of mathematical computation is far from simple.

The best single device for use in mathematics is the Braille-writer. Possibly next in importance is the

arithmetic slate (see under materials heading "Taylor slate").

B. Geometry:

Again the use of the Braille machine affords numerous advantages as compared with that of the slate and stylus in the solution of mechanical problems; but even so the Braille student must be taught to do a much greater part of his work mentally than is the case with the average sighted student. Remarkable skill in performing mental calculations can be developed which has great practical value.

In teaching Geometry, somewhat less construction work should be required of the students. Nonetheless, by using the upward embossing wheel or the spur wheel the student can make constructions. Sometimes it is necessary for the teacher to supplement the embossed figures of the text with drawings of his own, and in some instances, geometric figures cut from blocks of wood, fashioned from wire, formed with cord or tacks, or set up on the graphic aids board. These aids are invaluable where clarification of complicated proofs or solutions are concerned. An important fact to remember is that what appears clear to the eye at a glance may still be complicated when perceived through the tactful sense alone.

Often the perception of geometric shapes can be aided by the kinesthetic sense, that is, simply by moving the student's hand to form the figure without the use of lines or physical forms.

W. H. Little of the Ontario School for the Blind

recommends the following teaching methods:

1. Insist on fairly accurate figures.
2. Have the pupil read from the Brailly copy, silently, while the teacher reads from her text, aloud.
3. Have the teacher cut geometric figures out of cardboard or plywood (triangles, rectangles) for the pupils to handle.
4. Check on the pupil's understanding of the Braille figures in the text by having him point out such things as the base, perpendicular and hypotenuse of a right-angled triangle, the two equal sides of an isosceles triangle, the parallel sides of a parallelogram.
5. It is better to spend about the first month or so in a course in constructive geometry (figures and lettering only). Letter diagrams with the Braille-writer.
6. Then the writing out of the construction, proofs can be introduced later.

Chemistry

For experiments in Chemistry it is perhaps best to have the blind student "look at" the apparatus with his hands, while the teacher or student describes it. Because of the dangers involved in handling chemicals, it will be best to have the other students perform the experiments, describing them as they do so, each step of the procedure,

observation and conclusion.

For the blind student, chemistry must be mostly a matter of straight memory work. Routine chemistry classroom work again can be handled in the fashion of Composition and Literature, with the student making Braille notes from the teacher's dictation, and from having the text read to him at home.

Dealing with diagrams will pose somewhat of a problem. Once the teacher has become familiarized with the various apparatus available to the blind student, and the blind student's ability, she will be in a position to decide which diagrams are to be utilized.

Physics

Experiments in physics can be carried on much as for Chemistry. Much in Physics must be committed to memory work. That portion of physics covering light, color, and mirrors may well prove difficult as such things form no picture in the mind of a blind person. However, most of what is contained in Physics will hold challenge and be of use to the enquiring mind of a blind student. Here again, diagrams pose a problem.

Biology

As in the other sciences, the laboratory work should be mostly a matter of listening. Nonetheless, if the animal being dissected is large enough, a blind student should be encouraged to feel each successive step as his lab partner proceeds. In any event, it will be necessary for a teacher

or a student to describe what they are doing and what they are seeing in order to enable the blind student to take notes. The theory can be handled in the usual way by having the text read and having the student take Braille notes.

The student's perception of diagrams can be facilitated by moving the student's hands to form the figure, without the use of lines or physical forms. Small cardboard cut-outs of paramoecium, amoeba may likewise be useful in conveying some conception of the topic under consideration.

Physical Education

Blind students need many opportunities for gross motor activity, for orientation in new surroundings, and for experience in group and team play. Even though he cannot participate in organized competition, the blind student can learn the rules (and perhaps act as timer or scorer), become familiar with the equipment, and participate in some of the drills. Swimming, track, wrestling, and bowling are with minimal adaptations feasible for blind students. Ball games are usually impossible for these students, but dancing, rhythms, apparatus, and physical fitness activities are easily learned (Simches, 1964, p. 11).

Industrial Arts and Home Economics

With adequate orientation in the industrial arts shop or the homemaking classroom and thorough exploration of machines and equipment, blind students can complete most of the assignments. Blind students can cook, sew, knit, hammer, saw, and finish wood. The degree of participation depends almost entirely upon the amount of time the teacher can devote to instruction in the use of tools and equipment (Simches, 1964, p. 12).

Examination procedure

The question paper can be read aloud on the tape recorder for all examinations. The student may then type answers for Literature, Composition, Social Studies, Biology, Chemistry, Physics or Algebra. It will be necessary to have all the problems worked out in Braille and then read on to the recorder. Answers for French examinations may also be done on the typewriter, provided it has the French keyboard or, if the student prefers, the French answers may be done in Braille and then spelled out on the recorder. Whether using a tape or a typewriter, the blind student will have to work in a separate room during examinations, for obvious reasons.

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